Paola Lecca

List of Publications by Year
in descending order

98 papers	743 citations	687220 13 h-index	610775 24 g-index
111 all docs	111 docs citations	111 times ranked	1066 citing authors

#	Article	IF	Citations
1	SPOP mutation leads to genomic instability in prostate cancer. ELife, 2015, 4, .	2.8	148
2	Electromagnetic fields in Schwarzschild and Reissner-NordstrÃ¶m geometry: Quantum corrections to the black hole entropy. Physical Review D, 1998, 57, 1108-1111.	1.6	79
3	Stochastic chemical kinetics. Biophysical Reviews, 2013, 5, 323-345.	1.5	38
4	Identifying key species in ecosystems with stochastic sensitivity analysis. Ecological Modelling, 2011, 222, 2542-2551.	1.2	33
5	Biological network inference for drug discovery. Drug Discovery Today, 2013, 18, 256-264.	3.2	31
6	A Stochastic Process Algebra Approach to Simulation of Autoreactive Lymphocyte Recruitment. Simulation, 2004, 80, 273-288.	1.1	30
7	Cell Cycle Control in Eukaryotes: A BioSpi model. Electronic Notes in Theoretical Computer Science, 2007, 180, 51-63.	0.9	28
8	A new probabilistic generative model of parameter inference in biochemical networks. , 2009, , .		23
9	Detecting modules in biological networks by edge weight clustering and entropy significance. Frontiers in Genetics, 2015, 6, 265.	1.1	22
10	Concurrency in leukocyte vascular recognition: developing the tools for a predictive computer model. Trends in Immunology, 2004, 25, 411-416.	2.9	21
11	Machine Learning for Causal Inference in Biological Networks: Perspectives of This Challenge. Frontiers in Bioinformatics, 2021, 1, .	1.0	21
12	Calibration of dynamic models of biological systems with KInfer. European Biophysics Journal, 2010, 39, 1019-1039.	1.2	20
13	Algorithmic Modeling Quantifies the Complementary Contribution of Metabolic Inhibitions to Gemcitabine Efficacy. PLoS ONE, 2012, 7, e50176.	1.1	17
14	Methods of biological network inference for reverse engineering cancer chemoresistance mechanisms. Drug Discovery Today, 2014, 19, 151-163.	3.2	14
15	Simulating the cellular passive transport of glucose using a time-dependent extension of Gillespie algorithm for stochastic Ï€-calculus. International Journal of Data Mining and Bioinformatics, 2007, 1, 315.	0.1	13
16	Parameter sensitivity analysis of stochastic models: Application to catalytic reaction networks. Computational Biology and Chemistry, 2013, 42, 5-17.	1.1	13
17	Deterministic versus stochastic modelling in biochemistry and systems biology. , 2013, , .		13
18	Composite nanocelluloseâ€based hydrogels with spatially oriented degradation and retarded release of macromolecules. Journal of Biomedical Materials Research - Part A, 2020, 108, 1509-1519.	2.1	12

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19	A time-dependent extension of gillespie algorithm for biochemical stochastic Ï€-calculus. , 2006, , .		11
20	Hybrid deterministic/stochastic simulation of complex biochemical systems. Molecular BioSystems, 2017, 13, 2672-2686.	2.9	11
21	Identification of Potential Leukocyte Biomarkers Related to Drug Recovery of CFTR: Clinical Applications in Cystic Fibrosis. International Journal of Molecular Sciences, 2021, 22, 3928.	1.8	10
22	Defining order and timing of mutations during cancer progression: the TO-DAG probabilistic graphical model. Frontiers in Genetics, 2015, 6, 309.	1.1	9
23	Identifying necessary and sufficient conditions for the observability of models of biochemical processes. Biophysical Chemistry, 2019, 254, 106257.	1.5	9
24	Inferring biochemical reaction pathways: the case of the gemcitabine pharmacokinetics. BMC Systems Biology, 2012, 6, 51.	3.0	8
25	Deducing Chemical Reaction Rate Constants and Their Regions of Confidence from Noisy Measurements of Time Series of Concentration. , 2009, , .		7
26	Stochastic simulation of the spatio-temporal dynamics of reaction-diffusion systems: the case for the bicoid gradient. Journal of Integrative Bioinformatics, 2010, 7, .	1.0	7
27	Accurate prediction of the age incidence of chronic myeloid leukemia with an improved two-mutation mathematical model. Integrative Biology (United Kingdom), 2016, 8, 1261-1275.	0.6	7
28	Network Inference from Time-Dependent Omics Data. Methods in Molecular Biology, 2011, 719, 435-455.	0.4	6
29	Time Series Analysis of the Bacillus subtilis Sporulation Network Reveals Low Dimensional Chaotic Dynamics. Frontiers in Microbiology, 2016, 7, 1760.	1.5	6
30	Control Theory and Cancer Chemotherapy: How They Interact. Frontiers in Bioengineering and Biotechnology, 2020, 8, 621269.	2.0	6
31	The effects of gravitational potential on chemical reaction rates. Journal of Physics: Conference Series, 2021, 2090, 012034.	0.3	6
32	BLENX MODELS OF Î±-SYNUCLEIN AND PARKIN KINETICS IN NEUROPATHOLOGY OF PARKINSON'S DISEASE. Journal of Biological Systems, 2011, 19, 149-181.	0.5	5
33	An integrative network inference approach to predict mechanisms of cancer chemoresistance. Integrative Biology (United Kingdom), 2013, 5, 458.	0.6	5
34	Modelling non-homogeneous stochastic reaction-diffusion systems: the case study of gemcitabine-treated non-small cell lung cancer growth. BMC Bioinformatics, 2012, 13, S14.	1.2	4
35	Network-Oriented Approaches to Anticancer Drug Response. Methods in Molecular Biology, 2017, 1513, 101-117.	0.4	4
36	Stochastic simulation of the spatio-temporal dynamics of reaction-diffusion systems: the case for the bicoid gradient. Journal of Integrative Bioinformatics, 2010, 7, 150.	1.0	4

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37	The DIAMINE Landmine Detection System. AIP Conference Proceedings, 2003, , .	0.3	3
38	Correlation-Based Network Inference and Modelling in Systems Biology: The NF-kappa B Signalling Network Case Study. , 2010, , .		3
39	Biexponential fitting for noisy data with error propagation. Mathematical Methods in the Applied Sciences, 2021, 44, 10154-10171.	1.2	3
40	Developing An Hierarchical Simulator for Beta-binders. , 0, , .		2
41	Redi: A Simulator of Stochastic Biochemical Reaction-Diffusion Systems. , 2010, , .		2
42	Model Identification Using Correlation-Based Inference and Transfer Entropy Estimation. , 2011, , .		2
43	A BIOSPI MODEL OF LYMPHOCYTE-ENDOTHELIAL INTERACTIONS IN INFLAMED BRAIN VENULES. , 2003, , 521-32.		2
44	On TD-WGcluster: Theoretical Foundations and Guidelines for the User. Methods in Molecular Biology, 2020, 2074, 233-262.	0.4	2
45	Predicting cell adhesion probability via the biochemical stochastic Ï€-calculus. , 2004, , .		1
46	On the Performances in Simulation of Parallel Databases: An Overview on the Most Recent Techniques for Query Optimization. , 2009, , .		1
47	Poster: Modelling the tumor shrinkage pharmacodynamics with BlenX. , 2011, , .		1
48	Deterministic chemical kinetics. , 2013, , 1-34.		1
49	Reaction-diffusion systems. , 2013, , 208-278.		1
50	Modelling in systems biology. , 2013, , 117-180.		1
51	How Monte Carlo heuristics aid to identify the physical processes of drug release kinetics. MethodsX, 2018, 5, 204-216.	0.7	1
52	A reaction-based model of the state space of chemical reaction systems enables efficient simulations. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2019, 17, 1-1.	1.9	1
53	A Process-Algebra Model of the Cell Mechanics of Autoreactive Lymphocytes Recruitment. Lecture Notes in Computational Vision and Biomechanics, 2012, , 311-333.	0.5	1
54	Abstract 1108: SPOP mutation leads to genomic instability in prostate cancer. , 2015, , .		1

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55	Abstract NG01: SPOP mutation is associated with genomic instability in prostate cancer. , 2015, , .		1
56	Module Detection in Dynamic Networks by Temporal Edge Weight Clustering. Lecture Notes in Computer Science, 2016, , 54-70.	1.0	1
57	Stiffness estimate of information propagation in biological systems modelled as spring networks. , 2020, , .		1
58	The Present and the Future Perspectives of Biological Network Inference. Advances in Bioinformatics and Biomedical Engineering Book Series, 0, , 118-140.	0.2	1
59	Analysis of SARS-CoV-2 protein interactome map. , 2021, , .		1
60	Estimating the Parameters of Cyclin-Triggered Gene Expression in Cell Cycle Control Network. , 2009, , .		0
61	On the Parameter Inference in Chaotic Chemical Systems. , 2009, , .		0
62	A Model Predicting Rolling Cells Percentage in Inflamed Brain Venules. Lecture Notes in Computational Vision and Biomechanics, 2013, , 65-80.	0.5	0
63	Mechanistic Models of Astrocytic Glucose Metabolism Calibrated on PET Images. Lecture Notes in Computational Vision and Biomechanics, 2013, , 131-155.	0.5	0
64	The stochastic approach to biochemical kinetics. , 2013, , 35-82.		0
65	KInfer: a tool for model calibration. , 2013, , 280-321.		0
66	Modelling living systems with BlenX. , 2013, , 322-346.		0
67	Simulation of ecodynamics: key nodes in food webs. , 2013, , 348-372.		0
68	The exact stochastic simulation algorithms. , 2013, , 83-115.		0
69	The structure of biochemical models. , 2013, , 182-206.		0
70	MP66-01 SPOP MUTATION LEADS TO GENOMIC INSTABILITY IN PROSTATE CANCER. Journal of Urology, 2015, 193, .	0.2	0
71	Deterministic Differential Equations. , 2016, , 67-98.		0
72	Network-Based Conceptualization of Observational Data. , 2016, , 47-65.		0

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73	From Network Inference to the Study of Human DiseasesaaThe work is partially supported by the National Research Foundation of Luxembourg (AFR 9139104).. , 2016, , 119-140.		0
74	A hierarchical model to predict the probability of germination of bacterial spores. , 2017, , .		0
75	Determining structural parameter identifiability in biological dynamical models by analysing the statistical properties of the likelihood behaviour. , 2019, , .		0
76	Session details: Theme: Artificial intelligence and agents: BIO - Bioinformatics track. , 2021, , .		0
77	Editorial: Network-Oriented Approaches to Anticancer Drug Response. Frontiers in Bioengineering and Biotechnology, 2021, 9, 692369.	2.0	0
78	EXPLODET PROJECT: METHODS OF AUTOMATIC DATA PROCESSING AND ANALYSIS FOR THE DETECTION OF HIDDEN EXPLOSIVE. , 2003, , .		0
79	Translating SBML Models into the Stochastic Ï€-Calculus for Stochastic Simulation. Lecture Notes in Computer Science, 2006, , 73-88.	1.0	0
80	Session details: Volume I: Artificial intelligence & agents, distributed systems, and information systems: BioHealth informatics track. , 2014, , .		0
81	Session details: Volume I: Artificial intelligence and agents, distributed systems, and information systems: Computational biology and bioinformatics track. , 2015, , .		0
82	Network Inference From Time-Course Data. , 2016, , 21-45.		0
83	Overview of Biological Network Inference and Modeling of Dynamics. , 2016, , 1-11.		0
84	Network Inference From Steady-State Data. , 2016, , 13-19.		0
85	Session details: Volume I: Artificial intelligence and agents, distributed systems, and information systems: Computational biology and bioinformatics track. , 2016, , .		0
86	Quantum Mechanics in Biology. , 2019, , 1-23.		0
87	Statistical Physics in Biology. , 2019, , 25-50.		0
88	Graph Theory and Physics Meet Network Biology. , 2019, , 51-78.		0
89	Applied Descriptors for Complexity and Centrality to Network Biology. , 2019, , 79-104.		0
90	Complex Systems, Data and Inference. SpringerBriefs in Statistics, 2020, , 1-18.	0.3	0

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91	Observability of Bacterial Growth Models in Bubble Column Bioreactors. Lecture Notes in Computer Science, 2020, , 309-322.	1.0	0
92	Model Identifiability. SpringerBriefs in Statistics, 2020, , 37-48.	0.3	0
93	Dynamic Models. SpringerBriefs in Statistics, 2020, , 19-35.	0.3	0
94	The theory of active agents for simulating dynamical networks and its π-calculus specification. , 2021, , .		0
95	Session details: Theme: AI and agents: BIO - Bioinformatics track. , 2020, , .		0
96	Structural and Dynamical Heterogeneity in Ecological Networks. Advances in Bioinformatics and Biomedical Engineering Book Series, 0, , 141-162.	0.2	0
97	On the asymptotic stability of advection-diffusion equations of mass transport in a bubble column bioreactor. Journal of Physics: Conference Series, 2021, 2090, 012035.	0.3	0
98	Computing organoids' volume in medical images: the case study of cystic fibrosis. , 2020, , .		0