Jean Clairambault

List of Publications by Year
in descending order

97 papers	2,394 citations	218381 26 h-index	223531 46 g-index
101 all docs	101 docs citations	101 times ranked	2377 citing authors

#	Article	IF	Citations
1	Perspectives in cancer treatment. Physics of Life Reviews, 2022, 42, 15-18.	1.5	0
2	Improving cancer treatments via dynamical biophysical models. Physics of Life Reviews, 2021, 39, 1-48.	1.5	31
3	Identification of a transient state during the acquisition of temozolomide resistance in glioblastoma. Cell Death and Disease, 2020, 11, 19.	2.7	53
4	Stepping From Modeling Cancer Plasticity to the Philosophy of Cancer. Frontiers in Genetics, 2020, 11, 579738.	1.1	4
5	Cell plasticity in cancer cell populations. F1000Research, 2020, 9, 635.	0.8	42
6	Plasticity in Cancer Cell Populations: Biology, Mathematics and Philosophy of Cancer. Lecture Notes in Computer Science, 2020, , 3-9.	1.0	1
7	A survey of adaptive cell population dynamics models of emergence of drug resistance in cancer, and open questions about evolution and cancer. Biomath, 2019, 8, .	0.3	7
8	Adaptive dynamics of hematopoietic stem cells and their supporting stroma: a model and mathematical analysis. Mathematical Biosciences and Engineering, 2019, 16, 4818-4845.	1.0	6
9	Control in dormancy or eradication of cancer stem cells: Mathematical modeling and stability issues. Journal of Theoretical Biology, 2018, 449, 103-123.	0.8	11
10	Asymptotic analysis and optimal control of an integro-differential system modelling healthy and cancer cells exposed to chemotherapy. Journal Des Mathematiques Pures Et Appliquees, 2018, 116, 268-308.	0.8	54
11	Why Is Evolution Important in Cancer and What Mathematics Should Be Used to Treat Cancer? Focus on Drug Resistance. , 2018, , 107-120.		5
12	Analysis of a System Describing Proliferative-Quiescent Cell Dynamics. Chinese Annals of Mathematics Series B, 2018, 39, 345-356.	0.2	0
13	Introducing Cell-Plasticity Mechanisms into a Class of Cell Population Dynamical Systems. , 2018, , .		1
14	Stability Analysis of a Nonlinear System with Infinite Distributed Delays Describing Cell Dynamics. , 2018, , .		3
15	Integrating Biological and Mathematical Models to Explain and Overcome Drug Resistance in Cancer, Part 2: from Theoretical Biology to Mathematical Models. Current Stem Cell Reports, 2017, 3, 260-268.	0.7	4
16	Integrating Biological and Mathematical Models to Explain and Overcome Drug Resistance in Cancer. Part 1: Biological Facts and Studies in Drug Resistance. Current Stem Cell Reports, 2017, 3, 253-259.	0.7	6
17	Analysis of a model of dormancy in cancer as a state of coexistence between tumor and healthy stem cells. , 2017, , .		4
18	Analysis of Blood Cell Production under Growth Factors Switching * *This work is supported by ALMA-project on the Â«Analysis of Acute Myeloid LeukemiaÂ», Paris-Saclay (France), also in part by the PHC Bosphore 2016 France-Turkey under project numbers 35634QM (France) and EEEAG-115E820	0.5	2

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19	Genotype- or Phenotype-Targeting Anticancer Therapies? Lessons from Tumor Evolutionary Biology. Current Pharmaceutical Design, 2017, 22, 6625-6644.	0.9	7
20	Abstract 92: Acquisition of temozolomide resistance: Identification of a new drug tolerant stage in glioblastoma cells. , 2017, , .		0
21	Physiologically Structured Cell Population Dynamic Models with Applications to Combined Drug Delivery Optimisation in Oncology. Mathematical Modelling of Natural Phenomena, 2016, 11, 45-70.	0.9	3
22	Emergence of cytotoxic resistance in cancer cell populations: Single-cell mechanisms and population-level consequences. AIP Conference Proceedings, 2016, , .	0.3	0
23	Phenotype heterogeneity in cancer cell populations. AIP Conference Proceedings, 2016, , .	0.3	0
24	Tracking the evolution of cancer cell populations through the mathematical lens of phenotype-structured equations. Biology Direct, 2016, 11, 43.	1.9	56
25	Stability of a delay system coupled to a differential-difference system describing the coexistence of ordinary and mutated hematopoietic stem cells. , 2016, , .		4
26	Mathematics of Pharmacokinetics and Pharmacodynamics: Diversity of Topics, Models and Methods. Mathematical Modelling of Natural Phenomena, 2016, 11, 1-8.	0.9	1
27	Diverse spatio-temporal dynamical patterns of p53 and cell fate decisions. AIP Conference Proceedings, 2016, , .	0.3	2
28	Preface of the â€œSymposium on Mathematical Models and Methods to investigate Heterogeneity in Cell and Cell Population Biologyâ€: AIP Conference Proceedings, 2016, , .	0.3	0
29	Cell population heterogeneity and evolution towards drug resistance in cancer: Biological and mathematical assessment, theoretical treatment optimisation. Biochimica Et Biophysica Acta - General Subjects, 2016, 1860, 2627-2645.	1.1	69
30	Emergence of cytotoxic resistance in cancer cell populations*. ITM Web of Conferences, 2015, 5, 00009.	0.4	0
31	Introduction to the workshop. ITM Web of Conferences, 2015, 5, 00002.	0.4	0
32	Emergence of Drug Tolerance in Cancer Cell Populations: An Evolutionary Outcome of Selection, Nongenetic Instability, and Stress-Induced Adaptation. Cancer Research, 2015, 75, 930-939.	0.4	120
33	Modeling the Effects of Space Structure and Combination Therapies on Phenotypic Heterogeneity and Drug Resistance in Solid Tumors. Bulletin of Mathematical Biology, 2015, 77, 1-22.	0.9	96
34	The dynamics of p53 in single cells: physiologically based ODE and reactionâ€“diffusion PDE models. Physical Biology, 2014, 11, 045001.	0.8	35
35	Deterministic Mathematical Modelling for Cancer Chronotherapeutics: Cell Population Dynamics and Treatment Optimization. Modeling and Simulation in Science, Engineering and Technology, 2014, , 265-294.	0.4	1
36	Stability analysis of PDEs modelling cell dynamics in Acute Myeloid Leukemia. , 2014, , .		7

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37	The p53 protein and its molecular network: Modelling a missing link between DNA damage and cell fate. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 232-247.	1.1	60
38	Enabling multiscale modeling in systems medicine. Genome Medicine, 2014, 6, 21.	3.6	76
39	Reactionâ€“diffusion systems for spatio-temporal intracellular protein networks: A beginner's guide with two examples. Computational and Structural Biotechnology Journal, 2014, 10, 12-22.	1.9	13
40	Synchronisation and control of proliferation in cycling cell population models with age structure. Mathematics and Computers in Simulation, 2014, 96, 66-94.	2.4	34
41	A coupled model for healthy and cancerous cells dynamics in Acute Myeloid Leukemia. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 7529-7534.	0.4	8
42	Physiologically Based Mathematical Models to Optimize Therapies Against Metastatic Colorectal Cancer: A Mini-Review. Current Pharmaceutical Design, 2014, 20, 37-48.	0.9	18
43	Optimisation of Cancer Drug Treatments Using Cell Population Dynamics. Lecture Notes on Mathematical Modelling in the Life Sciences, 2013, , 265-309.	0.1	15
44	A spatial physiological model for p53 intracellular dynamics. Journal of Theoretical Biology, 2013, 316, 9-24.	0.8	23
45	Applying ecological and evolutionary theory to cancer: a long and winding road. Evolutionary Applications, 2013, 6, 1-10.	1.5	70
46	Can theorems help treat cancer?. Journal of Mathematical Biology, 2013, 66, 1555-1558.	0.8	5
47	Populational adaptive evolution, chemotherapeutic resistance and multiple anti-cancer therapies. ESAIM: Mathematical Modelling and Numerical Analysis, 2013, 47, 377-399.	0.8	101
48	Half-life Time. , 2013, , 876-876.		1
49	Designing proliferating cell population models with functional targets for control by anti-cancer drugs. Discrete and Continuous Dynamical Systems - Series B, 2013, 18, 865-889.	0.5	18
50	Age-structured cell population model to study the influence of growth factors on cell cycle dynamics. Mathematical Biosciences and Engineering, 2013, 10, 1-17.	1.0	33
51	Law of Mass Action. , 2013, , 1109-1109.		0
52	Maximum Concentration. , 2013, , 1189-1189.		0
53	Phenomenological vs Physiological Modeling. , 2013, , 1697-1698.		0
54	Pharmacokinetic Modeling. , 2013, , 1685-1687.		0

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55	Reaction-Diffusion-Advection Equation. , 2013, , 1817-1817.		3
56	Pharmacokinetics-Pharmacodynamics. , 2013, , 1688-1689.		0
57	Partial Differential Equation (PDE), Models. , 2013, , 1635-1635.		2
58	A Systems Biomedicine Approach for Chronotherapeutics Optimization: Focus on the Anticancer Drug Irinotecan. SIMAI Springer Series, 2012, , 301-327.	0.4	6
59	Modelling targets for anticancer drug control optimization in physiologically structured cell population models. , 2012, , .		0
60	Stability Analysis of Cell Dynamics in Leukemia. Mathematical Modelling of Natural Phenomena, 2012, 7, 203-234.	0.9	40
61	A new model of cell dynamics in Acute Myeloid Leukemia involving distributed delays1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 55-60.	0.4	10
62	Local Asymptotic Stability Conditions for the Positive Equilibrium of a System Modeling Cell Dynamics in Leukemia. Lecture Notes in Control and Information Sciences, 2012, , 187-197.	0.6	0
63	Proliferation in Cell Population Models with Age Structure. , 2011, , .		4
64	Commitment of Mathematicians in Medicine: A Personal Experience, and Generalisations. Acta Biotheoretica, 2011, 59, 201-211.	0.7	1
65	Theoretical optimization of Irinotecan-based anticancer strategies in the case of drug-induced efflux. Applied Mathematics Letters, 2011, 24, 1251-1256.	1.5	10
66	Circadian rhythm and cell population growth. Mathematical and Computer Modelling, 2011, 53, 1558-1567.	2.0	23
67	Optimizing cancer pharmacotherapeutics using mathematical modeling and a systems biology approach. Personalized Medicine, 2011, 8, 271-286.	0.8	13
68	A Combined Experimental and Mathematical Approach for Molecular-based Optimization of Irinotecan Circadian Delivery. PLoS Computational Biology, 2011, 7, e1002143.	1.5	57
69	Stability Conditions for a System Modeling Cell Dynamics in Leukemia. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 99-102.	0.4	5
70	Modelling the genesis and treatment of cancer: The potential role of physiologically based pharmacodynamics. European Journal of Cancer, 2010, 46, 21-32.	1.3	11
71	Circadian Timing in Cancer Treatments. Annual Review of Pharmacology and Toxicology, 2010, 50, 377-421.	4.2	375
72	Comparison of Perron and Floquet Eigenvalues in Age Structured Cell Division Cycle Models. Mathematical Modelling of Natural Phenomena, 2009, 4, 183-209.	0.9	19

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73	Modelling Physiological and Pharmacological Control on Cell Proliferation to Optimise Cancer Treatments. Mathematical Modelling of Natural Phenomena, 2009, 4, 12-67.	0.9	35
74	An age-and-cyclin-structured cell population model for healthy and tumoral tissues. Journal of Mathematical Biology, 2008, 57, 91-110.	0.8	67
75	Analysis of a molecular structured population model with possible polynomial growth for the cell division cycle. Mathematical and Computer Modelling, 2008, 47, 699-713.	2.0	35
76	A Step Toward Optimization of Cancer Therapeutics [Chronobiological Investigations]. IEEE Engineering in Medicine and Biology Magazine, 2008, 27, 20-24.	1.1	10
77	Rhythms from Seconds to Days: Part 2 [Chronobiological Investigations]. IEEE Engineering in Medicine and Biology Magazine, 2008, 27, 16-16.	1.1	0
78	Stability analysis of systems with distributed delays and application to hematopoietic cell maturation dynamics. , 2008, , .		41
79	Implications of circadian clocks for the rhythmic delivery of cancer therapeutics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 3575-3598.	1.6	57
80	Correction for LÃ©vi, Implications of circadian clocks for the rhythmic delivery of cancer therapeutics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 4665-4666.	1.6	0
81	An inequality for the Perron and Floquet eigenvalues of monotone differential systems and age structured equations. Comptes Rendus Mathematique, 2007, 345, 549-554.	0.1	19
82	Modeling oxaliplatin drug delivery to circadian rhythms in drug metabolism and host tolerance. Advanced Drug Delivery Reviews, 2007, 59, 1054-1068.	6.6	33
83	A Mathematical Model of the Cell Cycle and Its Circadian Control. , 2007, , 239-251.		8
84	Physiologically based modelling of circadian control on cell proliferation. , 2006, 2006, 173-6.		7
85	Circadian rhythm and tumour growth. Comptes Rendus Mathematique, 2006, 342, 17-22.	0.1	27
86	Optimisation of time-scheduled regimen for anti-cancer drug infusion. ESAIM: Mathematical Modelling and Numerical Analysis, 2005, 39, 1069-1086.	0.8	26
87	PERIOD SHIFT INDUCTION BY INTERMITTENT STIMULATION IN ADROSOPHILAMODEL OF PER PROTEIN OSCILLATIONS. Chronobiology International, 2000, 17, 1-14.	0.9	10
88	Myocardial determinants in regulation of the heart rate. Journal of Molecular Medicine, 1997, 75, 860-866.	1.7	6
89	Heart rate and heart rate variability, a pharmacological target. Cardiovascular Drugs and Therapy, 1997, 10, 677-685.	1.3	11
90	Linear and non-linear analyses of heart rate variability: a minireview. Cardiovascular Research, 1996, 31, 371-9.	1.8	20

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91	Heart Rate and Heart Rate Variability during Sleep in Small-for-Gestational Age Newborns. Pediatric Research, 1994, 35, 500-504.	1.1	77
92	Heart rate and heart rate variability during sleep in small-for-gestational age newborns. Pediatric Research, 1994, 35, 500-5.	1.1	19
93	Heart-rate variability in low-risk prematurely born infants reaching normal term: A comparison with full-term newborns. Early Human Development, 1993, 32, 183-195.	0.8	69
94	A real time Heart Rate Variability analysis system using a synchronous language: Signal. , 1992, , .		0
95	Heart rate variability in normal and at risk newborns. , 1992, , .		0
96	Heart rate variability in normal sleeping full-term and preterm neonates. Early Human Development, 1992, 28, 169-183.	0.8	111
97	A synchronous language, SIGNAL: application to heart rate variability and body movements analysis in sleeping newborns. , 0, , .		2