Constantinos Ioannis Siettos

List of Publications by Year
in descending order

108 papers	2,508 citations	331670 21 h-index	243625 44 g-index
113 all docs	113 docs citations	113 times ranked	2964 citing authors

#	Article	IF	Citations
1	A numerical method for the approximation of stable and unstable manifolds of microscopic simulators. Numerical Algorithms, 2022, 89, 1335-1368.	1.9	3
2	Designing social distancing policies for the COVID-19 pandemic: A probabilistic model predictive control approach. Mathematical Biosciences and Engineering, 2022, 19, 8804-8832.	1.9	4
3	Numerical Bifurcation Analysis of PDEs From Lattice Boltzmann Model Simulations: a Parsimonious Machine Learning Approach. Journal of Scientific Computing, 2022, 92, .	2.3	12
4	Construction of embedded fMRI resting-state functional connectivity networks using manifold learning. Cognitive Neurodynamics, 2021, 15, 585-608.	4.0	16
5	Mathematical modelling and numerical bifurcation analysis of inbreeding and interdisciplinarity dynamics in academia. Journal of Computational and Applied Mathematics, 2021, 385, 113194.	2.0	5
6	Analytical and numerical bifurcation analysis of a forest ecosystem model with human interaction. ESAIM: Mathematical Modelling and Numerical Analysis, 2021, 55, S653-S675.	1.9	0
7	ISOMAP and machine learning algorithms for the construction of embedded functional connectivity networks of anatomically separated brain regions from resting state fMRI data of patients with Schizophrenia. AIMS Neuroscience, 2021, 8, 295-321.	2.3	14
8	A bulletin from Greece: a health system under the pressure of the second COVID-19 wave. Pathogens and Global Health, 2021, 115, 133-134.	2.3	18
9	Lessons from the devastating impact of the first COVID-19 wave in Italy. Pathogens and Global Health, 2021, 115, 211-212.	2.3	5
10	Numerical solution and bifurcation analysis of nonlinear partial differential equations with extreme learning machines. Journal of Scientific Computing, 2021, 89, 1.	2.3	22
11	Extreme learning machine collocation for the numerical solution of elliptic PDEs with sharp gradients. Computer Methods in Applied Mechanics and Engineering, 2021, 387, 114188.	6.6	26
12	Electroencephalography source localization analysis in epileptic children during a visual working‐memory task. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3404.	2.1	6
13	Preface to the special issue on "Mathematical modeling and analysis in health and natural sciences". Ricerche Di Matematica, 2020, 69, 389-392.	1.0	0
14	Data-based analysis, modelling and forecasting of the COVID-19 outbreak. PLoS ONE, 2020, 15, e0230405.	2.5	657
15	Coarse-scale PDEs from fine-scale observations via machine learning. Chaos, 2020, 30, 013141.	2.5	42
16	Tracing day-zero and forecasting the COVID-19 outbreak in Lombardy, Italy: A compartmental modelling and numerical optimization approach. PLoS ONE, 2020, 15, e0240649.	2.5	52
17	Firebreak and Fuelbreak. , 2020, , 444-452.		0
18	Construction of functional brain connectivity from fMRI data with driving and modulatory inputs: an extended conditional Granger causality approach. AIMS Neuroscience, 2020, 7, 66-88.	2.3	1

#	ARTICLE	IF	CITATIONS
19	Data-based analysis, modelling and forecasting of the COVID-19 outbreak. , 2020, 15, e0230405.		0
20	Data-based analysis, modelling and forecasting of the COVID-19 outbreak. , 2020, 15, e0230405.		0
21	Data-based analysis, modelling and forecasting of the COVID-19 outbreak. , 2020, 15, e0230405.		0
22	Data-based analysis, modelling and forecasting of the COVID-19 outbreak. , 2020, 15, e0230405.		0
23	Numerical analysis of mesenchymal stem cell mechanotransduction dynamics reveals homoclinic bifurcations. International Journal of Non-Linear Mechanics, 2019, 113, 146-157.	2.6	0
24	Bautin bifurcations in a forest-grassland ecosystem with human-environment interactions. Scientific Reports, 2019, 9, 2665.	3.3	3
25	A class of universal approximators of real continuous functions revisited. Ricerche Di Matematica, 2018, 67, 729-738.	1.0	0
26	Nonlinear Galerkin methods for a system of PDEs with Turing instabilities. Calcolo, 2018, 55, 1.	1.1	1
27	Analytical and numerical bifurcation analysis of dislocation pattern formation of the Walgraefâ€"Aifantis model. International Journal of Non-Linear Mechanics, 2018, 102, 41-52.	2.6	7
28	Correlation of Opioid Mortality with Prescriptions and Social Determinants: A Cross-sectional Study of Medicare Enrollees. Drugs, 2018, 78, 111-121.	10.9	24
29	Firebreak and Fuelbreak. , 2018, , 1-9.		10
30	Varicella zoster virus transmission dynamics in Vojvodina, Serbia. PLoS ONE, 2018, 13, e0193838.	2.5	7
31	Reaching to virtual targets: The oblique effect reloaded in 3-D. Neuroscience, 2017, 343, 128-139.	2.3	1
32	S&P500 Forecasting and trading using convolution analysis of major asset classes. Procedia Computer Science, 2017, 113, 484-489.	2.0	3
33	Reaction time as a stochastic process implemented by functional brain networks. Cognitive Neuroscience, 2017, 8, 133-135.	1.4	3
34	To infinity and some glimpses of beyond. Nature Communications, 2017, 8, 1562.	12.8	9
35	Classification of fMRI resting-state maps using machine learning techniques: A comparative study. AIP Conference Proceedings, 2017, , .	0.4	3
36	Cellular automata simulation of forest fire behavior on Italian landscape: The case of Sardinia. AIP Conference Proceedings, 2017, , .	0.4	2

#	Article	IF	Citations
37	Foreshocks and short-term hazard assessment of large earthquakes using complex networks: the case of the 2009 L'Aquila earthquake. Nonlinear Processes in Geophysics, 2016, 23, 241-256.	1.3	14
38	MODELING HETEROGENEITY IN NETWORKS USING POLYNOMIAL CHAOS. International Journal for Multiscale Computational Engineering, 2016, 14, 291-302.	1.2	2
39	Multiscale modeling of brain dynamics: from single neurons and networks to mathematical tools. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2016, 8, 438-458.	6.6	32
40	Editorial: Mathematical modeling of infectious disease dynamics. Virulence, 2016, 7, 119-120.	4.4	1
41	Estimation of the age-specific per-contact probability of Ebola virus transmission in Liberia using agent-based simulations. AIP Conference Proceedings, 2016, , .	0.4	0
42	Children with well controlled epilepsy possess different spatio-temporal patterns of causal network connectivity during a visual working memory task. Cognitive Neurodynamics, 2016, 10, 99-111.	4.0	14
43	Forecasting and control policy assessment for the Ebola virus disease (EVD) epidemic in Sierra Leone using small-world networked model simulations. BMJ Open, 2016, 6, e008649.	1.9	14
44	Modular Patterns of Phase Desynchronization Networks During a Simple Visuomotor Task. Brain Topography, 2016, 29, 118-129.	1.8	24
45	Isolation of C. difficile Carriers Alone and as Part of a Bundle Approach for the Prevention of Clostridium difficile Infection (CDI): A Mathematical Model Based on Clinical Study Data. PLoS ONE, 2016, 11, e0156577.	2.5	30
46	A Complex Network Theory Approach for the Spatial Distribution of Fire Breaks in Heterogeneous Forest Landscapes for the Control of Wildland Fires. PLoS ONE, 2016, 11, e0163226.	2.5	22
47	Equation-free Model Reduction in Agent-based Computations: Coarse-grained Bifurcation and Variable-free Rare Event Analysis. Mathematical Modelling of Natural Phenomena, 2015, 10, 71-90.	2.4	10
48	Judging the Judges' Performance in Rhythmic Gymnastics. Medicine and Science in Sports and Exercise, 2015, 47, 640-648.	0.4	25
49	Preface of the "3rd symposium on dynamics of complex systems & networks: Modelling, computational analysis and control". AIP Conference Proceedings, 2015, , .	0.4	0
50	Complex network theory criterion to distribute fuel breaks for the hazard control of fire spread in forests. AIP Conference Proceedings, 2015, , .	0.4	7
51	Tuning the average path length of complex networks and its influence to the emergent dynamics of the majority-rule model. Mathematics and Computers in Simulation, 2015, 109, 186-196.	4.4	11
52	Modeling the 2014 Ebola Virus Epidemic 2013 Agent-Based Simulations, Temporal Analysis and Future Predictions for Liberia and Sierra Leone. PLOS Currents, 2015, 7, .	1.4	37
53	Granger causality analysis reveals distinct spatio-temporal connectivity patterns in motor and perceptual visuo-spatial working memory. Frontiers in Computational Neuroscience, 2014, 8, 146.	2.1	19
54	Analysing the topology of seismicity in the Hellenic arc using complex networks. Journal of Seismology, 2014, 18, 37-46.	1.3	6

#	Article	IF	Citations
55	Amplitude spectrum EEG signal evidence for the dissociation of motor and perceptual spatial working memory in the human brain. Experimental Brain Research, 2014, 232, 659-673.	1.5	7
56	Coarse-grained computational stability analysis and acceleration of the collective dynamics of a Monte Carlo simulation of bacterial locomotion. Applied Mathematics and Computation, 2014, 232, 836-847.	2.2	3
57	Equation-free computation of coarse-grained center manifolds of microscopic simulators. Journal of Computational Dynamics, 2014, 1, 377-389.	1.1	2
58	Steady states for chemical process plants: A legacy code, timeâ€stepping approach. AICHE Journal, 2013, 59, 3308-3321.	3.6	3
59	Homoclinic bifurcations in radiating diffusion flames. Combustion Theory and Modelling, 2013, 17, 40-52.	1.9	5
60	Can social microblogging be used to forecast intraday exchange rates?. NETNOMICS: Economic Research and Electronic Networking, 2013, 14, 47-68.	0.9	18
61	Complex Systems Modelling, Analysis, and Control. Journal of Applied Mathematics, 2013, 2013, 1-2.	0.9	0
62	Mathematical modeling of infectious disease dynamics. Virulence, 2013, 4, 295-306.	4.4	277
63	A coarse-grained analysis of the functional brain connectivity from EEG recordings of a visuo-perceptual discrimination task. , 2013, , .		1
64	Preface of the "2nd symposium on dynamics of complex systems and networks: Modelling, computational analysis and control". , 2013, , .		0
65	Coarse-graining the dynamics of network evolution: the rise and fall of a networked society. New Journal of Physics, 2012, 14, 083037.	2.9	5
66	An equation-free approach to agent-based computation: Bifurcation analysis and control of stationary states. Europhysics Letters, 2012, 99, 48007.	2.0	16
67	Preface of the "Symposium on dynamics of complex systems & networks: Modelling, computational analysis and control". , 2012, , .		0
68	Systematic bifurcation analysis of a planar diffusion flame model with radiative heat losses. , 2012, , .		0
69	A computational approach for approximating center manifolds of black-box simulators. , 2012, , .		0
70	On the effect of the path length of small-world networks on epidemic dynamics. Virulence, 2012, 3, 146-153.	4.4	9
71	On the efficiency of the equation-free closure of statistical moments: dynamical properties of a stochastic epidemic model on ErdÅ'sâ€"RÃ©nyi networks. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P08020.	2.3	5
72	On the construction of the exact analytic or parametric closed-form solutions of standing waves concerning the cubic nonlinear SchrÃ¶dinger equation. Archive of Applied Mechanics, 2012, 82, 1557-1568.	2.2	1

#	Article	IF	Citations
73	A neuro‒fuzzy computational approach for multicriteria optimisation of the quality of espresso coffee by pod based on the extraction time, temperature and blend. International Journal of Food Science and Technology, 2012, 47, 837-846.	2.7	6
74	Single-trial magnetoencephalography signals encoded as an unfolding decision process. NeuroImage, 2012, 59, 3604-3610.	4.2	12
75	Detection of coarse-grained unstable states of microscopic/stochastic systems: a timestepper-based iterative protocol. Nonlinear Dynamics, 2012, 67, 103-117.	5.2	3
76	Wildland fire spread modelling using cellular automata: evolution in large-scale spatially heterogeneous environments under fire suppression tactics. International Journal of Wildland Fire, 2011, 20, 633.	2.4	53
77	Coarse-graining the Dynamics of Network Evolution: The Rise and Fall of a Networked Society. , 2011, , .		0
78	A timestepper-based approach for the coarse-grained analysis of microscopic neuronal simulators on networks: Bifurcation and rare-events micro- to macro-computations. Neurocomputing, 2011, 74, 3576-3589.	5.9	14
79	Equation-Free multiscale computational analysis of individual-based epidemic dynamics on networks. Applied Mathematics and Computation, 2011, 218, 324-336.	2.2	15
80	Dynamic analysis of EEG signals during spatial working memory used for either perception discrimination or planning of action. , 2011, 2011, 5896-9.		3
81	Escape Dynamics in Office Buildings: Using Molecular Dynamics to Quantify the Impact of Certain Aspects of Human Behavior During Emergency Evacuation. Environmental Modeling and Assessment, 2010, 15, 411-418.	2.2	17
82	Coarse-grained bifurcation analysis and detection of criticalities of an individual-based epidemiological network model with infection control. Applied Mathematical Modelling, 2010, 34, 552-560.	4.2	11
83	EQUATION-FREE MULTISCALE COMPUTATIONS IN SOCIAL NETWORKS: FROM AGENT-BASED MODELING TO COARSE-GRAINED STABILITY AND BIFURCATION ANALYSIS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 3673-3688.	1.7	12
84	MULTISCALE COMPUTATIONS ON NEURAL NETWORKS: FROM THE INDIVIDUAL NEURON INTERACTIONS TO THE MACROSCOPIC-LEVEL ANALYSIS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 121-134.	1.7	7
85	Epidemionics: From the host-host interactions to the systematic analysis of the emergent macroscopic dynamics of epidemic networks. Virulence, 2010, 1, 338-349.	4.4	12
86	Multi-Scale Modelling And Coarse-Grained Analysis Of Triglycerides Dynamics. Computer Aided Chemical Engineering, 2010, 28, 625-630.	0.5	12
87	A timestepper approach for the systematic bifurcation and stability analysis of polymer extrusion dynamics. Journal of Non-Newtonian Fluid Mechanics, 2008, 151, 59-68.	2.4	22
88	A cellular automata model for forest fire spread prediction: The case of the wildfire that swept through Spetses Island in 1990. Applied Mathematics and Computation, 2008, 204, 191-201.	2.2	138
89	The influence of infection control policies: A systematic study of the dynamics of an individual-based epidemic model with isolation. , 2008, , .		1
90	Current-induced wave propagation on surfaces of voids in metallic thin films with high symmetry of surface diffusional anisotropy. Journal of Applied Physics, 2007, 102, 073506.	2.5	6

#	ARTICLE	IF	CITATIONS
91	Reduced computations for nematic-liquid crystals: A timestepper approach for systems with continuous symmetries. Journal of Non-Newtonian Fluid Mechanics, 2007, 146, 51-58.	2.4	5
92	A systems-based approach to multiscale computation: Equation-free detection of coarse-grained bifurcations. Computers and Chemical Engineering, 2006, 30, 1632-1642.	3.8	14
93	AN EQUATION-FREE APPROACH TO NONLINEAR CONTROL: COARSE FEEDBACK LINEARIZATION WITH POLE-PLACEMENT. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2006, 16, 2029-2041.	1.7	12
94	Fuzzy Reasoning. , 2005, , 437-474.		15
95	Discussion on: â€œPower Flow Control of a Doubly-Fed Induction Machine Coupled to a Flywheelâ€. European Journal of Control, 2005, 11, 222-224.	2.6	0
96	Discussion on: Power Flow Control of a Doubly-Fed Induction Machine Coupled to a Flywheel. European Journal of Control, 2005, 11, 222-228.	2.6	0
97	COARSE BIFURCATION DIAGRAMS VIA MICROSCOPIC SIMULATORS: A STATE-FEEDBACK CONTROL-BASED APPROACH. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2004, 14, 207-220.	1.7	27
98	Time-steppers andâ€˜coarseâ€™ control of distributed microscopic processes. International Journal of Robust and Nonlinear Control, 2004, 14, 89-111.	3.7	57
99	Microscopic/stochastic timesteppers and â€œcoarseâ€control: A KMC example. AICHE Journal, 2003, 49, 1922-1926.	3.6	89
100	Enabling Dynamic Process Simulators to Perform Alternative Tasks:Â A Time-Stepper-Based Toolkit for Computer-Aided Analysis. Industrial & Engineering Chemistry Research, 2003, 42, 6795-6801.	3.7	39
101	Coarse Brownian dynamics for nematic liquid crystals: Bifurcation, projective integration, and control via stochastic simulation. Journal of Chemical Physics, 2003, 118, 10149-10156.	3.0	82
102	Focusing revisited: a renormalization/bifurcation approach. Nonlinearity, 2003, 16, 497-506.	1.4	27
103	Truncated Chebyshev series approximation of fuzzy systems for control and nonlinear system identification. Fuzzy Sets and Systems, 2002, 126, 89-104.	2.7	13
104	Semiglobal stabilization of nonlinear systems using fuzzy control and singular perturbation methods. Fuzzy Sets and Systems, 2002, 129, 275-294.	2.7	13
105	Modelling of nonlinear process dynamics using Kohonen's neural networks, fuzzy systems and Chebyshev series. Computers and Chemical Engineering, 2002, 26, 479-486.	3.8	21
106	Design of a model identification fuzzy adaptive controller and stability analysis of nonlinear processes. Fuzzy Sets and Systems, 2001, 121, 169-179.	2.7	21
107	Modelling of nonlinear process dynamics using Kohonen's neural networks, fuzzy systems and Chebyshev series. Computer Aided Chemical Engineering, 2001, , 69-74.	0.5	0
108	Classification of aged wine distillates using fuzzy and neural network systems. Journal of Food Engineering, 2000, 46, 267-275.	5.2	40