Jean Lubuma

List of Publications by Year
in descending order

75 papers	1,363 citations	430874 18 h-index	377865 34 g-index
75 all docs	75 docs citations	75 times ranked	675 citing authors

#	Article	IF	Citations
1	Bifurcation analysis of a phage-bacteria interaction model with prophage induction. Mathematical Medicine and Biology, 2021, 38, 28-58.	1.2	6
2	Coupling the modeling of phage-bacteria interaction and cholera epidemiological model with and without optimal control. Journal of Theoretical Biology, 2021, 512, 110537.	1.7	4
3	Mathematical modeling and nonstandard finite difference scheme analysis for the environmental and spillover transmissions of Avian Influenza A model. Dynamical Systems, 2021, 36, 212-255.	0.4	5
4	Prevalence-based modeling approach of schistosomiasis: global stability analysis and integrated control assessment. Computational and Applied Mathematics, 2021, 40, 1.	2.2	1
5	Mathematical analysis of a spatioâ€temporal model for the population ecology of anopheles mosquito. Mathematical Methods in the Applied Sciences, 2020, 43, 3524-3555.	2.3	2
6	Modeling the transmission dynamics of the COVID-19 Pandemic in South Africa. Mathematical Biosciences, 2020, 328, 108441.	1.9	74
7	Nonstandard finite difference method revisited and application to the Ebola virus disease transmission dynamics. Journal of Difference Equations and Applications, 2020, 26, 818-854.	1.1	13
8	Modeling pyrethroids repellency and its role on the bifurcation analysis for a bed net malaria model. Chaos, Solitons and Fractals, 2020, 136, 109809.	5.1	7
9	The big unknown: The asymptomatic spread of COVID-19. Biomath, 2020, 9, .	0.7	11
10	Modeling the transmission dynamics of the Middle East Respiratory Syndrome Coronavirus (MERS-CoV) with latent immigrants. Journal of Interdisciplinary Mathematics, 2019, 22, 903-930.	0.7	14
11	An explicit nonstandard finite difference scheme for the FitzHughâ€“Nagumo equations. International Journal of Computer Mathematics, 2019, 96, 1993-2009.	1.8	12
12	Mathematics of a sexâ€structured model for syphilis transmission dynamics. Mathematical Methods in the Applied Sciences, 2018, 41, 8488-8513.	2.3	18
13	A MATHEMATICAL MODEL FOR EBOLA EPIDEMIC WITH SELF-PROTECTION MEASURES. Journal of Biological Systems, 2018, 26, 107-131.	1.4	16
14	Mathematical modeling of contact tracing as a control strategy of Ebola virus disease. International Journal of Biomathematics, 2018, 11, 1850093.	2.9	21
15	Backward bifurcation analysis for two continuous and discrete epidemiological models. Mathematical Methods in the Applied Sciences, 2018, 41, 8784-8798.	2.3	2
16	Continuous and discrete dynamical systems for the declines of honeybee colonies. Mathematical Methods in the Applied Sciences, 2018, 41, 8724-8740.	2.3	1
17	Dynamics of host-reservoir transmission of Ebola with spillover potential to humans. Electronic Journal of Qualitative Theory of Differential Equations, 2018, , 1-32.	0.5	2
18	Global stability of a two-patch cholera model with fast and slow transmissions. Mathematics and Computers in Simulation, 2017, 133, 142-164.	4.4	16

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19	Analysis of multilevel finite volume approximation of 2D convective Cahnâ€“Hilliard equation. Japan Journal of Industrial and Applied Mathematics, 2017, 34, 253-304.	0.9	5
20	Global stability for the continuous and discrete SIS-diffusion epidemiological models. Quaestiones Mathematicae, 2017, 40, 161-176.	0.6	0
21	A simple mathematical model for Ebola in Africa. Journal of Biological Dynamics, 2017, 11, 42-74.	1.7	100
22	Assessing the impact of the environmental contamination on the transmission of Ebola virus disease (EVD). Journal of Applied Mathematics and Computing, 2017, 55, 205-243.	2.5	9
23	Computational study of three numerical methods for some linear and nonlinear advection-diffusion-reaction problems. Progress in Computational Fluid Dynamics, 2017, 17, 114.	0.2	14
24	Modeling ebola virus disease transmissions with reservoir in a complex virus life ecology. Mathematical Biosciences and Engineering, 2017, 15, 21-56.	1.9	21
25	On the Numerical Solution of the Stationary Power-Law Stokes Equations: A Penalty Finite Element Approach. Journal of Scientific Computing, 2016, 69, 1058-1082.	2.3	5
26	Analysis and dynamically consistent nonstandard discretization for a rabies model in humans and dogs. Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas, 2016, 110, 783-798.	1.2	1
27	Analysis of a Time Implicit Scheme for the Oseen Model Driven by Nonlinear Slip Boundary Conditions. Journal of Mathematical Fluid Mechanics, 2016, 18, 717-730.	1.0	7
28	Mathematical analysis of a model for AVLâ€“HIV co-endemicity. Mathematical Biosciences, 2016, 271, 80-95.	1.9	19
29	Coupling finite volume and nonstandard finite difference schemes for a singularly perturbed SchrÃ¶dinger equation. International Journal of Computer Mathematics, 2016, 93, 1833-1844.	1.8	8
30	Global dynamics of a vaccination model for infectious diseases with asymptomatic carriers. Mathematical Biosciences and Engineering, 2016, 13, 813-840.	1.9	10
31	Switching from exact scheme to nonstandard finite difference scheme for linear delay differential equation. Applied Mathematics and Computation, 2015, 258, 388-403.	2.2	12
32	A nonstandard Volterra difference equation for the SIS epidemiological model. Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas, 2015, 109, 597-602.	1.2	5
33	Dynamics ofMycobacteriumandbovine tuberculosisin a Human-Buffalo Population. Computational and Mathematical Methods in Medicine, 2014, 2014, 1-20.	1.3	13
34	Dynamically consistent nonstandard finite difference schemes for epidemiological models. Journal of Computational and Applied Mathematics, 2014, 255, 161-182.	2.0	57
35	Positivity-preserving nonstandard finite difference schemes for cross-diffusion equations in biosciences. Computers and Mathematics With Applications, 2014, 68, 1071-1082.	2.7	27
36	Nonstandard finite difference schemes for Michaelisâ€“Menten type reactionâ€diffusion equations. Numerical Methods for Partial Differential Equations, 2013, 29, 337-360.	3.6	21

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37	Stability Analysis and Dynamics Preserving Nonstandard Finite Difference Schemes for a Malaria Model. Mathematical Population Studies, 2013, 20, 101-122.	2.2	19
38	An operator splitting method for the advection diffusion reaction equation for problems in porous flow. , 2013, , .		0
39	On nonstandard finite difference schemes in biosciences. AIP Conference Proceedings, 2012, 1487, 212-223.	0.4	23
40	From enzyme kinetics to epidemiological models with Michaelisâ€“Menten contact rate: Design of nonstandard finite difference schemes. Computers and Mathematics With Applications, 2012, 64, 201-213.	2.7	12
41	Mathematical modeling of sterile insect technology for control of anopheles mosquito. Computers and Mathematics With Applications, 2012, 64, 374-389.	2.7	75
42	Mathematical analysis of vector-borne diseases on plants. , 2012, , .		5
43	Dynamically-consistent non-standard finite difference method for an epidemic model. Mathematical and Computer Modelling, 2011, 53, 131-150.	2.0	36
44	Mathematical Modeling of Sterile Insect Technology for Control of Anopheles Mosquito. AIP Conference Proceedings, 2011, , .	0.4	2
45	Analysis and Dynamically Consistent Numerical Schemes for the SIS Model and Related Reaction Diffusion Equation. AIP Conference Proceedings, 2011, , .	0.4	4
46	Topological dynamic consistency of non-standard finite difference schemes for dynamical systems. Journal of Difference Equations and Applications, 2011, 17, 1769-1791.	1.1	28
47	A monotone scheme for Hamilton-Jacobi equations via the nonstandard finite difference method. Mathematical Methods in the Applied Sciences, 2010, 33, 41-48.	2.3	5
48	Total variation diminishing nonstandard finite difference schemes for conservation laws. Mathematical and Computer Modelling, 2010, 51, 160-166.	2.0	5
49	Reliable numerical schemes for a linear diffusion equation on a nonsmooth domain. Applied Mathematics Letters, 2010, 23, 544-548.	2.7	11
50	Symposium on Properties Preserving Numerical Schemes for Differential Equations. , 2009, , .		0
51	Dynamically Consistent Non-Standard Finite Difference Schemes for the MSEIR Epidemiological Model. , 2009, , .		6
52	Towards the implementation of the singular function method for singular perturbation problems. Applied Mathematics and Computation, 2009, 209, 68-74.	2.2	12
53	Comparison of Some Standard and Nonstandard Numerical Methods for the MSEIR Epidemiological Model. , 2009, , .		14
54	Reliable finite element methods for self-adjoint singular perturbation problems. Quaestiones Mathematicae, 2009, 32, 397-413.	0.6	0

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55	Energy properties preserving schemes for Burgers' equation. Numerical Methods for Partial Differential Equations, 2008, 24, 41-59.	3.6	17
56	Fourier series and integral equation method for the exterior Stokes problem. Numerical Methods for Partial Differential Equations, 2008, 24, 699-727.	3.6	0
57	Non-standard finite difference schemes for multi-dimensional second-order systems in non-smooth mechanics. Mathematical Methods in the Applied Sciences, 2007, 30, 789-825.	2.3	5
58	Solving singularly perturbed advectionâ€“reaction equationsvia non-standard finite difference methods. Mathematical Methods in the Applied Sciences, 2007, 30, 1627-1637.	2.3	12
59	Non-standard methods for singularly perturbed problems possessing oscillatory/layer solutions. Applied Mathematics and Computation, 2007, 187, 1147-1160.	2.2	19
60	Uniformly convergent non-standard finite difference methods for self-adjoint singular perturbation problems. Journal of Computational and Applied Mathematics, 2006, 191, 228-238.	2.0	34
61	On non-standard finite difference models of reactionâ€“diffusion equations. Journal of Computational and Applied Mathematics, 2005, 175, 11-29.	2.0	39
62	CONTRIBUTIONS TO THE THEORY OF NON-STANDARD FINITE DIFFERENCE METHODS AND APPLICATIONS TO SINGULAR PERTURBATION PROBLEMS. , 2005, , 513-560.		12
63	Non-standard finite-difference methods for vibro-impact problems. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 1927-1950.	2.1	23
64	Qualitatively stable finite difference schemes for advectionâ€“reaction equations. Journal of Computational and Applied Mathematics, 2003, 158, 19-30.	2.0	26
65	Nonstandard finite difference method by nonlocal approximation. Mathematics and Computers in Simulation, 2003, 61, 465-475.	4.4	113
66	An Improved Theta-method for Systems of Ordinary Differential Equations. Journal of Difference Equations and Applications, 2003, 9, 1023-1035.	1.1	22
67	Contributions to the mathematics of the nonstandard finite difference method and applications. Numerical Methods for Partial Differential Equations, 2001, 17, 518-543.	3.6	185
68	Integral equations for elliptic problems with edge singularities and applications to the fourier-boundary element method. Numerical Functional Analysis and Optimization, 2000, 21, 743-779.	1.4	1
69	Finite element method for elliptic problems with edge singularities. Journal of Computational and Applied Mathematics, 1999, 106, 145-168.	2.0	10
70	Dirichlet problems in polyhedral domains II: Approximation by FEM and BEM. Journal of Computational and Applied Mathematics, 1995, 61, 13-27.	2.0	18
71	Dirichlet Problems in Polyhedral Domains I: Regularity of the Solutions. Mathematische Nachrichten, 1994, 168, 243-261.	0.8	8
72	Classical solutions of two-dimensional stokes problems on non-smooth domains. Part 1: The radon integral operators. Mathematical Methods in the Applied Sciences, 1993, 16, 643-664.	2.3	2

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73	Classical solutions of two-dimensional stokes problems on non-smooth domains. Part 2: Collocation method for the radon equation. Mathematical Methods in the Applied Sciences, 1993, 16, 665-679.	2.3	0
74	Error estimates in projective solutions of the Radon equation. Journal of Computational and Applied Mathematics, 1993, 45, 309-319.	2.0	1
75	A mathematical model for the cannabis epidemic in a South African province with a non-linear incidence rate. Journal of Statistics and Management Systems, 0, , 1-21.	0.6	0