Roumen Anguelov

List of Publications by Year
in descending order

58	951	567281 15	477307 29
papers	citations	h-index	g-index

63	63	63	451
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Sustainable vector/pest control using the permanent sterile insect technique. Mathematical Methods in the Applied Sciences, 2020, 43, 10391-10412.	2.3	13
3	Bi-stable dynamics of a host-pathogen model. Biomath, 2019, 8, .	0.7	3
4	On the chemical meaning of some growth models possessing Compertzianâ€type property. Mathematical Methods in the Applied Sciences, 2018, 41, 8365-8376.	2.3	12
5	Biomathematics/advanced analysis in pure and applied sciences. Mathematical Methods in the Applied Sciences, 2018, 41, 8363-8364.	2.3	0
6	Backward bifurcation analysis for two continuous and discrete epidemiological models. Mathematical Methods in the Applied Sciences, 2018, 41, 8784-8798.	2.3	2
7	Stationary and oscillatory patterns in a coupled Brusselator model. Mathematics and Computers in Simulation, 2017, 133, 39-46.	4.4	12
8	Simulations and parameter estimation of a trap-insect model using a finite element approach. Mathematics and Computers in Simulation, 2017, 133, 47-75.	4.4	9
9	Dynamical behavior of an epidemiological model with a demographic Allee effect. Mathematics and Computers in Simulation, 2017, 133, 311-325.	4.4	5
10	Steady states and outbreaks of two-phase nonlinear age-structured model of population dynamics with discrete time delay. Journal of Biological Dynamics, 2017, 11, 75-101.	1.7	15
11	Mathematical model for pestâ€“insect control using mating disruption and trapping. Applied Mathematical Modelling, 2017, 52, 437-457.	4.2	26
12	Mathematical Models for the Propagation of Stress Waves in Elastic Rods: Exact Solutions and Numerical Simulation. Advances in Applied Mathematics and Mechanics, 2016, 8, 257-270.	1.2	1
13	Exact solution of the Mindlinâ€“Herrmann model for longitudinal vibration of an isotropic rod. Journal of Engineering Mathematics, 2016, 99, 185-201.	1.2	5
14	Hausdorff Continuous Interval Functions and Approximations. Lecture Notes in Computer Science, 2016, , 3-13.	1.3	4
15	Calculating the output distribution of stack filters that are erosion-dilation cascades, in particularLU LU-filters. Quaestiones Mathematicae, 2015, 38, 463-482.	0.6	0
16	Dynamics of SI epidemic with a demographic Allee effect. Theoretical Population Biology, 2015, 106, 1-13.	1.1	4
17	Dynamically consistent nonstandard finite difference schemes for epidemiological models. Journal of Computational and Applied Mathematics, 2014, 255, 161-182.	2.0	57
18	Backward bifurcation analysis of epidemiological model with partial immunity. Computers and Mathematics With Applications, 2014, 68, 931-940.	2.7	19

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19	BIOMATH 2013. Computers and Mathematics With Applications, 2014, 68, 903-904.	2.7	0
20	Biomathematical Conferences and Schools for Young Scientists at the Bulgarian Academy of Sciences. Biomath Communications, 2014, 1, .	0.5	0
21	Integrating learning and research at the "Biomath" conference series. Biomath Communications, 2014, 1, .	0.5	0
22	Stability Analysis and Dynamics Preserving Nonstandard Finite Difference Schemes for a Malaria Model. Mathematical Population Studies, 2013, 20, 101-122.	2.2	19
23	Algebraic and topological structure of some spaces of set-valued maps. Computers and Mathematics With Applications, 2013, 66, 1643-1654.	2.7	3
24	The Algebraic Structure of Spaces of Intervals: Contribution of Svetoslav Markov to Interval Analysis and its Applications. Biomath, 2013, 2, .	0.7	1
25	Parameter Identification in population models for insects using trap data. Biomath, 2013, 2, .	0.7	8
26	Model and Simulations of a Wood Frog Population. Biomath, 2012, 1, .	0.7	1
27	On nonstandard finite difference schemes in biosciences. AIP Conference Proceedings, 2012, 1487, 212-223.	0.4	23
28	A mathematical epidemiological model of gram-negativeBartonellabacteria: does differential ectoparasite load fully explain the differences in infection prevalence ofRattus rattusandRattus norvegicus?. Journal of Biological Dynamics, 2012, 6, 763-781.	1.7	6
29	Mathematical modeling of sterile insect technology for control of anopheles mosquito. Computers and Mathematics With Applications, 2012, 64, 374-389.	2.7	75
30	Mathematical analysis of vector-borne diseases on plants. , 2012, , .		5
31	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
32	Topological structure preserving numerical simulations of dynamical models. Journal of Computational and Applied Mathematics, 2010, 235, 358-365.	2.0	6
33	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
34	Total variation diminishing nonstandard finite difference schemes for conservation laws. Mathematical and Computer Modelling, 2010, 51, 160-166.	2.0	5
35	LULU Operators and Discrete Pulse Transform for Multidimensional Arrays. IEEE Transactions on Image Processing, 2010, 19, 3012-3023.	9.8	14
36	Structurally Stable Numerical Schemes for Applied Dynamical Models. Lecture Notes in Computer Science, 2010, , 554-562.	1.3	1

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37	Reliable Simulations for Applied Dynamical Models. , 2009, , .		0
38	Dynamically Consistent Non-Standard Finite Difference Schemes for the MSEIR Epidemiological Model. , 2009, , .		6
39	The convergence space of minimal USCO mappings. Czechoslovak Mathematical Journal, 2009, 59, 101-128.	0.3	6
40	Comparison of Some Standard and Nonstandard Numerical Methods for the MSEIR Epidemiological Model. , 2009, , .		14
41	LULU operators for functions of continuous argument. Quaestiones Mathematicae, 2009, 32, 187-202.	0.6	2
42	Energy properties preserving schemes for Burgers' equation. Numerical Methods for Partial Differential Equations, 2008, 24, 41-59.	3.6	17
43	Discrete Pulse Transform of Images. Lecture Notes in Computer Science, 2008, , 1-9.	1.3	5
44	Solving large classes of nonlinear systems of PDEs. Computers and Mathematics With Applications, 2007, 53, 491-507.	2.7	16
45	The Set of Hausdorff Continuous Functionsâ€" The Largest Linear Space of Interval Functions. Reliable Computing, 2006, 12, 337-363.	0.8	25
46	Numerical Computations with Hausdorff Continuous Functions. , 2006, , 279-286.		4
47	On non-standard finite difference models of reactionâ€"diffusion equations. Journal of Computational and Applied Mathematics, 2005, 175, 11-29.	2.0	39
48	Hausdorff Continuous Solutions of Nonlinear Partial Differential Equations through the Order Completion Method. Quaestiones Mathematicae, 2005, 28, 271-285.	0.6	13
49	Order convergence structure onC(X). Quaestiones Mathematicae, 2005, 28, 425-457.	0.6	22
50	Dedekind Order Completion ofC(X) by Hausdorff Continuous Functions. Quaestiones Mathematicae, 2004, 27, 153-169.	0.6	31
51	Qualitatively stable finite difference schemes for advectionâ€"reaction equations. Journal of Computational and Applied Mathematics, 2003, 158, 19-30.	2.0	26
52	Nonstandard finite difference method by nonlocal approximation. Mathematics and Computers in Simulation, 2003, 61, 465-475.	4.4	113
53	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
54	On the Mathematical Foundation of the Nonstandard Finite Difference Method. , 2000, , 772-774.		2

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55	On the Mathematical Foundation of the Nonstandard Finite Difference Method. , 2000, , 1401-1403.		1
56	Wrapping Function of the Initial Value Problem for ODE: Applications. Reliable Computing, 1999, 5, 143-164.	0.8	4
57	Wrapping Effect and Wrapping Function. Reliable Computing, 1998, 4, 311-330.	0.8	9
58	GUARANTEED BOUNDS FOR THE SOLUTION OF THE WAVE EQUATION. Quaestiones Mathematicae, 1996, 19, 275-289.	0.6	0