Abraham Jose Arenas Tawil

List of Publications by Year
in descending order

44 papers	900 citations	471061 17 h-index	500791 28 g-index
46 all docs	46 docs citations	46 times ranked	617 citing authors

#	Article	IF	Citations
1	Mathematical Modeling of Toxoplasmosis Considering a Time Delay in the Infectivity of Oocysts. Mathematics, 2022, 10, 354.	1.1	9
2	Mathematical Modeling to Study Optimal Allocation of Vaccines against COVID-19 Using an Age-Structured Population. Axioms, 2022, 11, 109.	0.9	13
3	Mathematical Modeling of Physical Capital Diffusion Using a Spatial Solow Model: Application to Smuggling in Venezuela. Economies, 2022, 10, 164.	1.2	2
4	Nonlinear dynamics of a new seasonal epidemiological model with age-structure and nonlinear incidence rate. Computational and Applied Mathematics, 2021, 40, 1.	1.0	4
5	Nonlinear Dynamics of the Introduction of a New SARS-CoV-2 Variant with Different Infectiousness. Mathematics, 2021, 9, 1564.	1.1	5
6	Qualitative analysis of a mathematical model with presymptomatic individuals and two SARS-CoV-2 variants. Computational and Applied Mathematics, 2021, 40, 1.	1.0	14
7	Mathematical Analysis and Numerical Solution of a Model of HIV with a Discrete Time Delay. Mathematics, 2021, 9, 257.	1.1	10
8	Modeling and Forecasting Cases of RSV Using Artificial Neural Networks. Mathematics, 2021, 9, 2958.	1.1	3
9	Exact Solution for Relativistic Trajectories Using Modal Transseries. Symmetry, 2020, 12, 1505.	1.1	0
10	Optimization of the Controls against the Spread of Zika Virus in Populations. Computation, 2020, 8, 76.	1.0	7
11	Mathematical modeling to design public health policies for Chikungunya epidemic using optimal control. Optimal Control Applications and Methods, 2020, 41, 1584-1603.	1.3	12
12	Positivity and Boundedness of Solutionsfor a Stochastic Seasonal EpidemiologicalModel for Respiratory Syncytial Virus(RSV). IngenierÃa Y Ciencia, 2017, 13, 95-121.	0.3	3
13	Magnetic properties of an Ising ferromagnetic model on a square lattice with next-nearest-neighbor and crystal field interactions. Journal of Magnetism and Magnetic Materials, 2016, 417, 434-441.	1.0	16
14	Fractional Order Financial Models for Awareness and Trial Advertising Decisions. Computational Economics, 2016, 48, 555-568.	1.5	9
15	Construction of nonstandard finite difference schemes for the SI and SIR epidemic models of fractional order. Mathematics and Computers in Simulation, 2016, 121, 48-63.	2.4	83
16	Analytical-Numerical Solution of a Parabolic Diffusion Equation Under Uncertainty Conditions Using DTM with Monte Carlo Simulations. IngenierÃa Y Ciencia, 2015, 11, 49-72.	0.3	1
17	A fractional order epidemic model for the simulation of outbreaks of influenza A(H1N1). Mathematical Methods in the Applied Sciences, 2014, 37, 2218-2226.	1.2	115
18	Polynomial Chaos for random fractional order differential equations. Applied Mathematics and Computation, 2014, 226, 123-130.	1.4	18

#	Article	IF	Citations
19	A nonstandard finite difference numerical scheme applied to a mathematical model of the prevalence of smoking in Spain: a case study. Computational and Applied Mathematics, 2014, 33, 13-25.	1.3	7
20	A novel approach to obtain analytical-numerical solutions of nonlinear Lorenz system. Numerical Algorithms, 2014, 67, 93-107.	1.1	2
21	A nonstandard finite difference scheme for a nonlinear Blackâ€“Scholes equation. Mathematical and Computer Modelling, 2013, 57, 1663-1670.	2.0	14
22	Accuracy of analytical-numerical solutions of the Michaelis-Menten equation. Computational and Applied Mathematics, 2011, 30, 445-461.	1.0	9
23	Modeling the epidemic waves of AH1N1/09 influenza around the world. Spatial and Spatio-temporal Epidemiology, 2011, 2, 219-226.	0.9	38
24	Nonstandard numerical schemes for modeling a 2-DOF serial robot with rotational spring-damper-actuators. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 1211-1224.	1.0	5
25	Randomness in a mathematical model for the transmission of respiratory syncytial virus (). Mathematics and Computers in Simulation, 2010, 80, 971-981.	2.4	6
26	An exact global solution for the classical epidemic model. Nonlinear Analysis: Real World Applications, 2010, 11, 1819-1825.	0.9	24
27	Modeling toxoplasmosis spread in cat populations under vaccination. Theoretical Population Biology, 2010, 77, 227-237.	0.5	23
28	Combination of nonstandard schemes and Richardsonâ€™s extrapolation to improve the numerical solution of population models. Mathematical and Computer Modelling, 2010, 52, 1030-1036.	2.0	46
29	Modal series solution for an epidemic model. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 1151-1157.	1.2	6
30	Modeling the social obesity epidemic with stochastic networks. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 3692-3701.	1.2	22
31	A nonstandard numerical scheme of predictorâ€“corrector type for epidemic models. Computers and Mathematics With Applications, 2010, 59, 3740-3749.	1.4	46
32	STOCHASTIC MODELING WITH MONTE CARLO OF OBESITY POPULATION. Journal of Biological Systems, 2010, 18, 93-108.	0.5	7
33	Piecewise finite series solutions of seasonal diseases models using multistage Adomian method. Communications in Nonlinear Science and Numerical Simulation, 2009, 14, 3967-3977.	1.7	36
34	Dynamical analysis of the transmission of seasonal diseases using the differential transformation method. Mathematical and Computer Modelling, 2009, 50, 765-776.	2.0	17
35	Periodic solutions of nonautonomous differential systems modeling obesity population. Chaos, Solitons and Fractals, 2009, 42, 1234-1244.	2.5	9
36	Piecewise finite series solution of nonlinear initial value differential problem. Applied Mathematics and Computation, 2009, 212, 209-215.	1.4	14

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37	Stochastic modeling of the transmission of respiratory syncytial virus (RSV) in the region of Valencia, Spain. BioSystems, 2009, 96, 206-212.	0.9	20
38	Dynamics of a model of Toxoplasmosis disease in human and cat populations. Computers and Mathematics With Applications, 2009, 57, 1692-1700.	1.4	28
39	Nonstandard numerical methods for a mathematical model for influenza disease. Mathematics and Computers in Simulation, 2008, 79, 622-633.	2.4	69
40	Modeling the spread of seasonal epidemiological diseases: Theory and applications. Mathematical and Computer Modelling, 2008, 48, 548-557.	2.0	30
41	Existence of periodic solutions in a model of respiratory syncytial virus RSV. Journal of Mathematical Analysis and Applications, 2008, 344, 969-980.	0.5	20
42	Mathematical modeling of Toxoplasmosis disease in varying size populations. Computers and Mathematics With Applications, 2008, 56, 690-696.	1.4	18
43	Non-standard numerical method for a mathematical model of RSV epidemiological transmission. Computers and Mathematics With Applications, 2008, 56, 670-678.	1.4	38
44	A Nonstandard Dynamically Consistent Numerical Scheme Applied to Obesity Dynamics. Journal of Applied Mathematics, 2008, 2008, 1-14.	0.4	21