Gilberto C GonzÃ¡lez-Parra

List of Publications by Year
in descending order

71 papers	1,235 citations	361045 20 h-index	454577 30 g-index
75 all docs	75 docs citations	75 times ranked	883 citing authors

#	Article	IF	Citations
1	A new method based on the Laplace transform and Fourier series for solving linear neutral delay differential equations. Applied Mathematics and Computation, 2022, 420, 126914.	1.4	4
2	Mathematical Modeling of Toxoplasmosis Considering a Time Delay in the Infectivity of Oocysts. Mathematics, 2022, 10, 354.	1.1	9
3	Impact of Infective Immigrants on COVID-19 Dynamics. Mathematical and Computational Applications, 2022, 27, 11.	0.7	1
4	Mathematical Modeling to Study Optimal Allocation of Vaccines against COVID-19 Using an Age-Structured Population. Axioms, 2022, 11, 109.	0.9	13
5	Accuracy of the Laplace transform method for linear neutral delay differential equations. Mathematics and Computers in Simulation, 2022, 197, 308-326.	2.4	7
6	Mathematical Modeling of Physical Capital Diffusion Using a Spatial Solow Model: Application to Smuggling in Venezuela. Economies, 2022, 10, 164.	1.2	2
7	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
8	Impact of a New SARS-CoV-2 Variant on the Population: A Mathematical Modeling Approach. Mathematical and Computational Applications, 2021, 26, 25.	0.7	23
9	Analysis of Key Factors of a SARS-CoV-2 Vaccination Program: A Mathematical Modeling Approach. Epidemiologia, 2021, 2, 140-161.	1.1	22
10	Nonlinear Dynamics of the Introduction of a New SARS-CoV-2 Variant with Different Infectiousness. Mathematics, 2021, 9, 1564.	1.1	5
11	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
12	Analysis of Delayed Vaccination Regimens: A Mathematical Modeling Approach. Epidemiologia, 2021, 2, 271-293.	1.1	13
13	Mathematical Analysis and Numerical Solution of a Model of HIV with a Discrete Time Delay. Mathematics, 2021, 9, 257.	1.1	10
14	Modeling and Forecasting Cases of RSV Using Artificial Neural Networks. Mathematics, 2021, 9, 2958.	1.1	3
15	Optimization of the Controls against the Spread of Zika Virus in Populations. Computation, 2020, 8, 76.	1.0	7
16	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
17	The rate of viral transfer between upper and lower respiratory tracts determines RSV illness duration. Journal of Mathematical Biology, 2019, 79, 467-483.	0.8	12
18	Effect of stochasticity on coinfection dynamics of respiratory viruses. BMC Bioinformatics, 2019, 20, 191.	1.2	10

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19	Mathematical modeling and numerical simulations of Zika in Colombia considering mutation. Mathematics and Computers in Simulation, 2019, 163, 1-18.	2.4	23
20	Mathematical Modeling and Characterization of the Spread of Chikungunya in Colombia. Mathematical and Computational Applications, 2019, 24, 6.	0.7	9
21	Superinfection and cell regeneration can lead to chronic viral coinfections. Journal of Theoretical Biology, 2019, 466, 24-38.	0.8	8
22	Quantifying rotavirus kinetics in the REH tumor cell line using in vitro data. Virus Research, 2018, 244, 53-63.	1.1	18
23	Mathematical modeling of crime as a social epidemic. Journal of Interdisciplinary Mathematics, 2018, 21, 623-643.	0.4	23
24	Modeling of fusion inhibitor treatment of RSV in African green monkeys. Journal of Theoretical Biology, 2018, 456, 62-73.	0.8	14
25	A quantitative assessment of dynamical differences of RSV infections in vitro and in vivo. Virology, 2018, 523, 129-139.	1.1	10
26	A comparison of RSV and influenza in vitro kinetic parameters reveals differences in infecting time. PLoS ONE, 2018, 13, e0192645.	1.1	24
27	Positivity and Boundedness of Solutionsfor a Stochastic Seasonal EpidemiologicalModel for Respiratory Syncytial Virus(RSV). IngenierÃa Y Ciencia, 2017, 13, 95-121.	0.3	3
28	Fractional Order Financial Models for Awareness and Trial Advertising Decisions. Computational Economics, 2016, 48, 555-568.	1.5	9
29	A comparison of methods for extracting influenza viral titer characteristics. Journal of Virological Methods, 2016, 231, 14-24.	1.0	3
30	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
31	PrediccIÃ³n de la epidemia del virus respiratorio sincitial en BogotÃ¡ D.C. utilizando variables climatolÃ³gicas. Biomedica, 2015, 36, 378-389.	0.3	2
32	Assessing Uncertainty in A2 Respiratory Syncytial Virus Viral Dynamics. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-9.	0.7	29
33	Modeling Chagas Disease at Population Level to Explain Venezuela's Real Data. Osong Public Health and Research Perspectives, 2015, 6, 288-301.	0.7	5
34	Modelling influenza A(H1N1) 2009 epidemics using a random network in a distributed computing environment. Acta Tropica, 2015, 143, 29-35.	0.9	12
35	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
36	Public and health professionalsâ€™ misconceptions about the dynamics of body weight gain/loss. System Dynamics Review, 2014, 30, 58-74.	1.1	32

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37	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
38	Polynomial Chaos for random fractional order differential equations. Applied Mathematics and Computation, 2014, 226, 123-130.	1.4	18
39	Positive numerical solution for a nonarbitrage liquidity model using nonstandard finite difference schemes. Numerical Methods for Partial Differential Equations, 2014, 30, 210-221.	2.0	9
40	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
41	A novel approach to obtain analytical-numerical solutions of nonlinear Lorenz system. Numerical Algorithms, 2014, 67, 93-107.	1.1	2
42	A nonstandard finite difference scheme for a nonlinear Blackâ€“Scholes equation. Mathematical and Computer Modelling, 2013, 57, 1663-1670.	2.0	14
43	Maximal oxygen consumption in national elite triathletes that train in high altitude. Journal of Human Sport and Exercise, 2013, 8, 342-349.	0.2	4
44	Accuracy of analytical-numerical solutions of the Michaelis-Menten equation. Computational and Applied Mathematics, 2011, 30, 445-461.	1.0	9
45	Modeling the epidemic waves of AH1N1/09 influenza around the world. Spatial and Spatio-temporal Epidemiology, 2011, 2, 219-226.	0.9	38
46	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
47	Elite triathlete performance related to age. Journal of Human Sport and Exercise, 2011, 6, 363-373.	0.2	4
48	Randomness in a mathematical model for the transmission of respiratory syncytial virus (). Mathematics and Computers in Simulation, 2010, 80, 971-981.	2.4	6
49	An exact global solution for the classical epidemic model. Nonlinear Analysis: Real World Applications, 2010, 11, 1819-1825.	0.9	24
50	Modeling toxoplasmosis spread in cat populations under vaccination. Theoretical Population Biology, 2010, 77, 227-237.	0.5	23
51	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
52	Modal series solution for an epidemic model. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 1151-1157.	1.2	6
53	Modeling the social obesity epidemic with stochastic networks. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 3692-3701.	1.2	22
54	A nonstandard numerical scheme of predictorâ€“corrector type for epidemic models. Computers and Mathematics With Applications, 2010, 59, 3740-3749.	1.4	46

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55	STOCHASTIC MODELING WITH MONTE CARLO OF OBESITY POPULATION. Journal of Biological Systems, 2010, 18, 93-108.	0.5	7
56	An Age-Structured Model for Childhood Obesity. Mathematical Population Studies, 2010, 17, 1-11.	0.8	11
57	Mathematical modelling of social obesity epidemic in the region of Valencia, Spain. Mathematical and Computer Modelling of Dynamical Systems, 2010, 16, 23-34.	1.4	36
58	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
59	Dynamical analysis of the transmission of seasonal diseases using the differential transformation method. Mathematical and Computer Modelling, 2009, 50, 765-776.	2.0	17
60	Periodic solutions of nonautonomous differential systems modeling obesity population. Chaos, Solitons and Fractals, 2009, 42, 1234-1244.	2.5	9
61	Piecewise finite series solution of nonlinear initial value differential problem. Applied Mathematics and Computation, 2009, 212, 209-215.	1.4	14
62	Stochastic modeling of the transmission of respiratory syncytial virus (RSV) in the region of Valencia, Spain. BioSystems, 2009, 96, 206-212.	0.9	20
63	Dynamics of a model of Toxoplasmosis disease in human and cat populations. Computers and Mathematics With Applications, 2009, 57, 1692-1700.	1.4	28
64	Optimization of swimming performance in triathlon. Journal of Human Sport and Exercise, 2009, 4, 69-71.	0.2	1
65	Nonstandard numerical methods for a mathematical model for influenza disease. Mathematics and Computers in Simulation, 2008, 79, 622-633.	2.4	69
66	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
67	Mathematical modeling of Toxoplasmosis disease in varying size populations. Computers and Mathematics With Applications, 2008, 56, 690-696.	1.4	18
68	Modeling dynamics of infant obesity in the region of Valencia, Spain. Computers and Mathematics With Applications, 2008, 56, 679-689.	1.4	40
69	A Nonstandard Dynamically Consistent Numerical Scheme Applied to Obesity Dynamics. Journal of Applied Mathematics, 2008, 2008, 1-14.	0.4	21
70	Data Extrapolation Using Genetic Programming to Matrices Singular Values Estimation. , 0, , .		1
71	An age structured model for obesity prevalence dynamics in populations. Revista MVZ Cordoba, 0, , .	0.2	2