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 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
2	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
3	Nonstandard numerical methods for a mathematical model for influenza disease. Mathematics and Computers in Simulation, 2008, 79, 622-633.	2.4	69
4	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
5	A nonstandard numerical scheme of predictorâ€“corrector type for epidemic models. Computers and Mathematics With Applications, 2010, 59, 3740-3749.	1.4	46
6	Modeling dynamics of infant obesity in the region of Valencia, Spain. Computers and Mathematics With Applications, 2008, 56, 679-689.	1.4	40
7	Modeling the epidemic waves of AH1N1/09 influenza around the world. Spatial and Spatio-temporal Epidemiology, 2011, 2, 219-226.	0.9	38
8	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
9	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
10	Public and health professionalsâ€™ misconceptions about the dynamics of body weight gain/loss. System Dynamics Review, 2014, 30, 58-74.	1.1	32
11	Assessing Uncertainty in A2 Respiratory Syncytial Virus Viral Dynamics. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-9.	0.7	29
12	Dynamics of a model of Toxoplasmosis disease in human and cat populations. Computers and Mathematics With Applications, 2009, 57, 1692-1700.	1.4	28
13	An exact global solution for the classical epidemic model. Nonlinear Analysis: Real World Applications, 2010, 11, 1819-1825.	0.9	24
14	A comparison of RSV and influenza in vitro kinetic parameters reveals differences in infecting time. PLoS ONE, 2018, 13, e0192645.	1.1	24
15	Modeling toxoplasmosis spread in cat populations under vaccination. Theoretical Population Biology, 2010, 77, 227-237.	0.5	23
16	Mathematical modeling of crime as a social epidemic. Journal of Interdisciplinary Mathematics, 2018, 21, 623-643.	0.4	23
17	Mathematical modeling and numerical simulations of Zika in Colombia considering mutation. Mathematics and Computers in Simulation, 2019, 163, 1-18.	2.4	23
18	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

#	Article	IF	Citations
19	Modeling the social obesity epidemic with stochastic networks. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 3692-3701.	1.2	22
20	Analysis of Key Factors of a SARS-CoV-2 Vaccination Program: A Mathematical Modeling Approach. Epidemiologia, 2021, 2, 140-161.	1.1	22
21	A Nonstandard Dynamically Consistent Numerical Scheme Applied to Obesity Dynamics. Journal of Applied Mathematics, 2008, 2008, 1-14.	0.4	21
22	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
23	Stochastic modeling of the transmission of respiratory syncytial virus (RSV) in the region of Valencia, Spain. BioSystems, 2009, 96, 206-212.	0.9	20
24	Mathematical modeling of Toxoplasmosis disease in varying size populations. Computers and Mathematics With Applications, 2008, 56, 690-696.	1.4	18
25	Polynomial Chaos for random fractional order differential equations. Applied Mathematics and Computation, 2014, 226, 123-130.	1.4	18
26	Quantifying rotavirus kinetics in the REH tumor cell line using in vitro data. Virus Research, 2018, 244, 53-63.	1.1	18
27	Dynamical analysis of the transmission of seasonal diseases using the differential transformation method. Mathematical and Computer Modelling, 2009, 50, 765-776.	2.0	17
28	Piecewise finite series solution of nonlinear initial value differential problem. Applied Mathematics and Computation, 2009, 212, 209-215.	1.4	14
29	A nonstandard finite difference scheme for a nonlinear Blackâ€“Scholes equation. Mathematical and Computer Modelling, 2013, 57, 1663-1670.	2.0	14
30	Modeling of fusion inhibitor treatment of RSV in African green monkeys. Journal of Theoretical Biology, 2018, 456, 62-73.	0.8	14
31	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
32	Analysis of Delayed Vaccination Regimens: A Mathematical Modeling Approach. Epidemiologia, 2021, 2, 271-293.	1.1	13
33	Mathematical Modeling to Study Optimal Allocation of Vaccines against COVID-19 Using an Age-Structured Population. Axioms, 2022, 11, 109.	0.9	13
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	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
36	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

#	Article	IF	Citations
37	An Age-Structured Model for Childhood Obesity. Mathematical Population Studies, 2010, 17, 1-11.	0.8	11
38	A quantitative assessment of dynamical differences of RSV infections in vitro and in vivo. Virology, 2018, 523, 129-139.	1.1	10
39	Effect of stochasticity on coinfection dynamics of respiratory viruses. BMC Bioinformatics, 2019, 20, 191.	1.2	10
40	Mathematical Analysis and Numerical Solution of a Model of HIV with a Discrete Time Delay. Mathematics, 2021, 9, 257.	1.1	10
41	Periodic solutions of nonautonomous differential systems modeling obesity population. Chaos, Solitons and Fractals, 2009, 42, 1234-1244.	2.5	9
42	Accuracy of analytical-numerical solutions of the Michaelis-Menten equation. Computational and Applied Mathematics, 2011, 30, 445-461.	1.0	9
43	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
44	Fractional Order Financial Models for Awareness and Trial Advertising Decisions. Computational Economics, 2016, 48, 555-568.	1.5	9
45	Mathematical Modeling and Characterization of the Spread of Chikungunya in Colombia. Mathematical and Computational Applications, 2019, 24, 6.	0.7	9
46	Mathematical Modeling of Toxoplasmosis Considering a Time Delay in the Infectivity of Oocysts. Mathematics, 2022, 10, 354.	1.1	9
47	Superinfection and cell regeneration can lead to chronic viral coinfections. Journal of Theoretical Biology, 2019, 466, 24-38.	0.8	8
48	STOCHASTIC MODELING WITH MONTE CARLO OF OBESITY POPULATION. Journal of Biological Systems, 2010, 18, 93-108.	0.5	7
49	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
50	Optimization of the Controls against the Spread of Zika Virus in Populations. Computation, 2020, 8, 76.	1.0	7
51	Accuracy of the Laplace transform method for linear neutral delay differential equations. Mathematics and Computers in Simulation, 2022, 197, 308-326.	2.4	7
52	Randomness in a mathematical model for the transmission of respiratory syncytial virus (). Mathematics and Computers in Simulation, 2010, 80, 971-981.	2.4	6
53	Modal series solution for an epidemic model. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 1151-1157.	1.2	6
54	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

#	Article	IF	Citations
55	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
56	Nonlinear Dynamics of the Introduction of a New SARS-CoV-2 Variant with Different Infectiousness. Mathematics, 2021, 9, 1564.	1.1	5
57	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
58	Elite triathlete performance related to age. Journal of Human Sport and Exercise, 2011, 6, 363-373.	0.2	4
59	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
60	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
61	A comparison of methods for extracting influenza viral titer characteristics. Journal of Virological Methods, 2016, 231, 14-24.	1.0	3
62	Positivity and Boundedness of Solutionsfor a Stochastic Seasonal EpidemiologicalModel for Respiratory Syncytial Virus(RSV). IngenierÃa Y Ciencia, 2017, 13, 95-121.	0.3	3
63	Modeling and Forecasting Cases of RSV Using Artificial Neural Networks. Mathematics, 2021, 9, 2958.	1.1	3
64	A novel approach to obtain analytical-numerical solutions of nonlinear Lorenz system. Numerical Algorithms, 2014, 67, 93-107.	1.1	2
65	PrediccIÃ³n de la epidemia del virus respiratorio sincitial en BogotÃ¡ D.C. utilizando variables climatolÃ³gicas. Biomedica, 2015, 36, 378-389.	0.3	2
66	An age structured model for obesity prevalence dynamics in populations. Revista MVZ Cordoba, 0, , .	0.2	2
67	Mathematical Modeling of Physical Capital Diffusion Using a Spatial Solow Model: Application to Smuggling in Venezuela. Economies, 2022, 10, 164.	1.2	2
68	Data Extrapolation Using Genetic Programming to Matrices Singular Values Estimation. , 0, , .		1
69	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
70	Optimization of swimming performance in triathlon. Journal of Human Sport and Exercise, 2009, 4, 69-71.	0.2	1
71	Impact of Infective Immigrants on COVID-19 Dynamics. Mathematical and Computational Applications, 2022, 27, 11.	0.7	1