

# Gilberto C González-Parra

## List of Publications by Year in descending order

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Version: 2024-02-01

71  
papers

1,235  
citations

361413

20  
h-index

454955

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). <i>Mathematical Methods in the Applied Sciences</i> , 2014, 37, 2218-2226.	2.3	115
2	Construction of nonstandard finite difference schemes for the SI and SIR epidemic models of fractional order. <i>Mathematics and Computers in Simulation</i> , 2016, 121, 48-63.	4.4	83
3	Nonstandard numerical methods for a mathematical model for influenza disease. <i>Mathematics and Computers in Simulation</i> , 2008, 79, 622-633.	4.4	69
4	Combination of nonstandard schemes and Richardson's extrapolation to improve the numerical solution of population models. <i>Mathematical and Computer Modelling</i> , 2010, 52, 1030-1036.	2.0	46
5	A nonstandard numerical scheme of predictor-corrector type for epidemic models. <i>Computers and Mathematics With Applications</i> , 2010, 59, 3740-3749.	2.7	46
6	Modeling dynamics of infant obesity in the region of Valencia, Spain. <i>Computers and Mathematics With Applications</i> , 2008, 56, 679-689.	2.7	40
7	Modeling the epidemic waves of AH1N1/09 influenza around the world. <i>Spatial and Spatio-temporal Epidemiology</i> , 2011, 2, 219-226.	1.7	38
8	Piecewise finite series solutions of seasonal diseases models using multistage Adomian method. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2009, 14, 3967-3977.	3.3	36
9	Mathematical modelling of social obesity epidemic in the region of Valencia, Spain. <i>Mathematical and Computer Modelling of Dynamical Systems</i> , 2010, 16, 23-34.	2.2	36
10	Public and health professionals' misconceptions about the dynamics of body weight gain/loss. <i>System Dynamics Review</i> , 2014, 30, 58-74.	1.9	32
11	Assessing Uncertainty in A2 Respiratory Syncytial Virus Viral Dynamics. <i>Computational and Mathematical Methods in Medicine</i> , 2015, 2015, 1-9.	1.3	29
12	Dynamics of a model of Toxoplasmosis disease in human and cat populations. <i>Computers and Mathematics With Applications</i> , 2009, 57, 1692-1700.	2.7	28
13	An exact global solution for the classical epidemic model. <i>Nonlinear Analysis: Real World Applications</i> , 2010, 11, 1819-1825.	1.7	24
14	A comparison of RSV and influenza in vitro kinetic parameters reveals differences in infecting time. <i>PLoS ONE</i> , 2018, 13, e0192645.	2.5	24
15	Modeling toxoplasmosis spread in cat populations under vaccination. <i>Theoretical Population Biology</i> , 2010, 77, 227-237.	1.1	23
16	Mathematical modeling of crime as a social epidemic. <i>Journal of Interdisciplinary Mathematics</i> , 2018, 21, 623-643.	0.7	23
17	Mathematical modeling and numerical simulations of Zika in Colombia considering mutation. <i>Mathematics and Computers in Simulation</i> , 2019, 163, 1-18.	4.4	23
18	Impact of a New SARS-CoV-2 Variant on the Population: A Mathematical Modeling Approach. <i>Mathematical and Computational Applications</i> , 2021, 26, 25.	1.3	23

#	ARTICLE	IF	CITATIONS
19	Modeling the social obesity epidemic with stochastic networks. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2010, 389, 3692-3701.	2.6	22
20	Analysis of Key Factors of a SARS-CoV-2 Vaccination Program: A Mathematical Modeling Approach. <i>Epidemiologia</i> , 2021, 2, 140-161.	2.2	22
21	A Nonstandard Dynamically Consistent Numerical Scheme Applied to Obesity Dynamics. <i>Journal of Applied Mathematics</i> , 2008, 2008, 1-14.	0.9	21
22	Existence of periodic solutions in a model of respiratory syncytial virus RSV. <i>Journal of Mathematical Analysis and Applications</i> , 2008, 344, 969-980.	1.0	20
23	Stochastic modeling of the transmission of respiratory syncytial virus (RSV) in the region of Valencia, Spain. <i>BioSystems</i> , 2009, 96, 206-212.	2.0	20
24	Mathematical modeling of Toxoplasmosis disease in varying size populations. <i>Computers and Mathematics With Applications</i> , 2008, 56, 690-696.	2.7	18
25	Polynomial Chaos for random fractional order differential equations. <i>Applied Mathematics and Computation</i> , 2014, 226, 123-130.	2.2	18
26	Quantifying rotavirus kinetics in the REH tumor cell line using in vitro data. <i>Virus Research</i> , 2018, 244, 53-63.	2.2	18
27	Dynamical analysis of the transmission of seasonal diseases using the differential transformation method. <i>Mathematical and Computer Modelling</i> , 2009, 50, 765-776.	2.0	17
28	Piecewise finite series solution of nonlinear initial value differential problem. <i>Applied Mathematics and Computation</i> , 2009, 212, 209-215.	2.2	14
29	A nonstandard finite difference scheme for a nonlinear Black-Scholes equation. <i>Mathematical and Computer Modelling</i> , 2013, 57, 1663-1670.	2.0	14
30	Modeling of fusion inhibitor treatment of RSV in African green monkeys. <i>Journal of Theoretical Biology</i> , 2018, 456, 62-73.	1.7	14
31	Qualitative analysis of a mathematical model with presymptomatic individuals and two SARS-CoV-2 variants. <i>Computational and Applied Mathematics</i> , 2021, 40, 1.	2.2	14
32	Analysis of Delayed Vaccination Regimens: A Mathematical Modeling Approach. <i>Epidemiologia</i> , 2021, 2, 271-293.	2.2	13
33	Mathematical Modeling to Study Optimal Allocation of Vaccines against COVID-19 Using an Age-Structured Population. <i>Axioms</i> , 2022, 11, 109.	1.9	13
34	Modelling influenza A(H1N1) 2009 epidemics using a random network in a distributed computing environment. <i>Acta Tropica</i> , 2015, 143, 29-35.	2.0	12
35	The rate of viral transfer between upper and lower respiratory tracts determines RSV illness duration. <i>Journal of Mathematical Biology</i> , 2019, 79, 467-483.	1.9	12
36	Mathematical modeling to design public health policies for Chikungunya epidemic using optimal control. <i>Optimal Control Applications and Methods</i> , 2020, 41, 1584-1603.	2.1	12

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37	An Age-Structured Model for Childhood Obesity. <i>Mathematical Population Studies</i> , 2010, 17, 1-11.	2.2	11
38	A quantitative assessment of dynamical differences of RSV infections in vitro and in vivo. <i>Virology</i> , 2018, 523, 129-139.	2.4	10
39	Effect of stochasticity on coinfection dynamics of respiratory viruses. <i>BMC Bioinformatics</i> , 2019, 20, 191.	2.6	10
40	Mathematical Analysis and Numerical Solution of a Model of HIV with a Discrete Time Delay. <i>Mathematics</i> , 2021, 9, 257.	2.2	10
41	Periodic solutions of nonautonomous differential systems modeling obesity population. <i>Chaos, Solitons and Fractals</i> , 2009, 42, 1234-1244.	5.1	9
42	Accuracy of analytical-numerical solutions of the Michaelis-Menten equation. <i>Computational and Applied Mathematics</i> , 2011, 30, 445-461.	2.2	9
43	Positive numerical solution for a nonarbitrage liquidity model using nonstandard finite difference schemes. <i>Numerical Methods for Partial Differential Equations</i> , 2014, 30, 210-221.	3.6	9
44	Fractional Order Financial Models for Awareness and Trial Advertising Decisions. <i>Computational Economics</i> , 2016, 48, 555-568.	2.6	9
45	Mathematical Modeling and Characterization of the Spread of Chikungunya in Colombia. <i>Mathematical and Computational Applications</i> , 2019, 24, 6.	1.3	9
46	Mathematical Modeling of Toxoplasmosis Considering a Time Delay in the Infectivity of Oocysts. <i>Mathematics</i> , 2022, 10, 354.	2.2	9
47	Superinfection and cell regeneration can lead to chronic viral coinfections. <i>Journal of Theoretical Biology</i> , 2019, 466, 24-38.	1.7	8
48	STOCHASTIC MODELING WITH MONTE CARLO OF OBESITY POPULATION. <i>Journal of Biological Systems</i> , 2010, 18, 93-108.	1.4	7
49	A nonstandard finite difference numerical scheme applied to a mathematical model of the prevalence of smoking in Spain: a case study. <i>Computational and Applied Mathematics</i> , 2014, 33, 13-25.	1.3	7
50	Optimization of the Controls against the Spread of Zika Virus in Populations. <i>Computation</i> , 2020, 8, 76.	2.0	7
51	Accuracy of the Laplace transform method for linear neutral delay differential equations. <i>Mathematics and Computers in Simulation</i> , 2022, 197, 308-326.	4.4	7
52	Randomness in a mathematical model for the transmission of respiratory syncytial virus (). <i>Mathematics and Computers in Simulation</i> , 2010, 80, 971-981.	4.4	6
53	Modal series solution for an epidemic model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2010, 389, 1151-1157.	2.6	6
54	Nonstandard numerical schemes for modeling a 2-DOF serial robot with rotational spring-damper-actuators. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2011, 27, 1211-1224.	2.1	5

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55	Modeling Chagas Disease at Population Level to Explain Venezuela's Real Data. <i>Osong Public Health and Research Perspectives</i> , 2015, 6, 288-301.	1.9	5
56	Nonlinear Dynamics of the Introduction of a New SARS-CoV-2 Variant with Different Infectiousness. <i>Mathematics</i> , 2021, 9, 1564.	2.2	5
57	Nonlinear dynamics of a new seasonal epidemiological model with age-structure and nonlinear incidence rate. <i>Computational and Applied Mathematics</i> , 2021, 40, 1.	2.2	4
58	Elite triathlete performance related to age. <i>Journal of Human Sport and Exercise</i> , 2011, 6, 363-373.	0.4	4
59	Maximal oxygen consumption in national elite triathletes that train in high altitude. <i>Journal of Human Sport and Exercise</i> , 2013, 8, 342-349.	0.4	4
60	A new method based on the Laplace transform and Fourier series for solving linear neutral delay differential equations. <i>Applied Mathematics and Computation</i> , 2022, 420, 126914.	2.2	4
61	A comparison of methods for extracting influenza viral titer characteristics. <i>Journal of Virological Methods</i> , 2016, 231, 14-24.	2.1	3
62	Positivity and Boundedness of Solutions for a Stochastic Seasonal Epidemiological Model for Respiratory Syncytial Virus (RSV). <i>Ingeniería Y Ciencia</i> , 2017, 13, 95-121.	0.3	3
63	Modeling and Forecasting Cases of RSV Using Artificial Neural Networks. <i>Mathematics</i> , 2021, 9, 2958.	2.2	3
64	A novel approach to obtain analytical-numerical solutions of nonlinear Lorenz system. <i>Numerical Algorithms</i> , 2014, 67, 93-107.	1.9	2
65	Predicción de la epidemia del virus respiratorio sincitial en Bogotá D.C. utilizando variables climatológicas. <i>Biomedica</i> , 2015, 36, 378-389.	0.7	2
66	An age structured model for obesity prevalence dynamics in populations. <i>Revista MVZ Cordoba</i> , 0, .	0.1	2
67	Mathematical Modeling of Physical Capital Diffusion Using a Spatial Solow Model: Application to Smuggling in Venezuela. <i>Economies</i> , 2022, 10, 164.	2.5	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. <i>Ingeniería Y Ciencia</i> , 2015, 11, 49-72.	0.3	1
70	Optimization of swimming performance in triathlon. <i>Journal of Human Sport and Exercise</i> , 2009, 4, 69-71.	0.4	1
71	Impact of Infective Immigrants on COVID-19 Dynamics. <i>Mathematical and Computational Applications</i> , 2022, 27, 11.	1.3	1