

# Jorge Velasco-Hernandez

## List of Publications by Year in descending order

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Version: 2024-02-01

66  
papers

2,703  
citations

304368

22  
h-index

189595

50  
g-index

76  
all docs

76  
docs citations

76  
times ranked

2809  
citing authors

#	ARTICLE	IF	CITATIONS
1	In-host Mathematical Modelling of COVID-19 in Humans. <i>Annual Reviews in Control</i> , 2020, 50, 448-456.	4.4	163
2	Modeling behavioral change and COVID-19 containment in Mexico: A trade-off between lockdown and compliance. <i>Mathematical Biosciences</i> , 2020, 325, 108370.	0.9	143
3	Using posterior predictive distributions to analyse epidemic models: COVID-19 in Mexico City. <i>Physical Biology</i> , 2020, 17, 065001.	0.8	21
4	Lifting mobility restrictions and the effect of superspreading events on the short-term dynamics of COVID-19. <i>Mathematical Biosciences and Engineering</i> , 2020, 17, 6240-6258.	1.0	16
5	A positivity-preserving central-upwind scheme for isentropic two-phase flows through deviated pipes. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2019, 53, 1433-1457.	0.8	0
6	Transmission dynamics of acute respiratory diseases in a population structured by age. <i>Mathematical Biosciences and Engineering</i> , 2019, 16, 7477-7493.	1.0	10
7	Robust qualitative estimation of time-varying contact rates in uncertain epidemics. <i>Epidemics</i> , 2018, 24, 98-104.	1.5	10
8	An exploration of pressure dynamics using differential equations defined on a fractal geometry. <i>Computational and Applied Mathematics</i> , 2018, 37, 1279-1293.	1.3	2
9	Model for breast cancer diversity and spatial heterogeneity. <i>Physical Review E</i> , 2018, 98, .	0.8	5
10	The role of animal grazing in the spread of Chagas disease. <i>Journal of Theoretical Biology</i> , 2018, 457, 19-28.	0.8	16
11	THE "UNHOLY" CHIKUNGUNYA "DENGUE" ZIKA TRINITY: A THEORETICAL ANALYSIS. <i>Journal of Biological Systems</i> , 2017, 25, 545-585.	0.5	19
12	Transmission dynamics of two dengue serotypes with vaccination scenarios. <i>Mathematical Biosciences</i> , 2017, 287, 54-71.	0.9	15
13	The Use of Chemoprophylaxis after Floods to Reduce the Occurrence and Impact of Leptospirosis Outbreaks. <i>International Journal of Environmental Research and Public Health</i> , 2017, 14, 594.	1.2	30
14	Sex-biased prevalence in infections with heterosexual, direct, and vector-mediated transmission: A theoretical analysis. <i>Mathematical Biosciences and Engineering</i> , 2017, 15, 125-140.	1.0	2
15	On carrying-capacity construction, metapopulations and density-dependent mortality. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2017, 22, 1099-1110.	0.5	0
16	Sex, Mosquitoes and Epidemics: An Evaluation of Zika Disease Dynamics. <i>Bulletin of Mathematical Biology</i> , 2016, 78, 2228-2242.	0.9	31
17	A descriptive study of fracture networks in rocks using complex network metrics. <i>Computers and Geosciences</i> , 2016, 88, 97-114.	2.0	20
18	Bayesian deconvolution of oil well test data using Gaussian processes. <i>Journal of Applied Statistics</i> , 2016, 43, 721-737.	0.6	3

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19	Superinfection between Influenza and RSV Alternating Patterns in San Luis Potosí-State, México. PLoS ONE, 2015, 10, e0115674.	1.1	20
20	Peridomestic Infection as a Determining Factor of Dengue Transmission. PLoS Neglected Tropical Diseases, 2015, 9, e0004296.	1.3	20
21	Climate, environmental and socio-economic change: weighing up the balance in vector-borne disease transmission. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20130551.	1.8	215
22	Coupled within-host and between-host dynamics and evolution of virulence. Mathematical Biosciences, 2015, 270, 204-212.	0.9	36
23	Introducing a Dengue Vaccine to Mexico: Development of a System for Evidence-Based Public Policy Recommendations. PLoS Neglected Tropical Diseases, 2014, 8, e3009.	1.3	14
24	A methodology for the characterization of flow conductivity through the identification of communities in samples of fractured rocks. Expert Systems With Applications, 2014, 41, 811-820.	4.4	17
25	Pressure transient analysis with exponential and power law boundary flux. Journal of Petroleum Science and Engineering, 2014, 121, 149-158.	2.1	2
26	The dynamics of technological change under constraints: Adopters and resources. Discrete and Continuous Dynamical Systems - Series B, 2014, 19, 3299-3317.	0.5	6
27	Facies Recognition Using Multifractal Hurst Analysis: Applications to Well-Log Data. Mathematical Geosciences, 2013, 45, 471-486.	1.4	24
28	A DFA approach in well-logs for the identification of facies associations. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 6015-6024.	1.2	10
29	Telegraphic double porosity models for head transient behavior in naturally fractured aquifers. Water Resources Research, 2013, 49, 4399-4408.	1.7	9
30	A mathematical model for coupling within-host and between-host dynamics in an environmentally-driven infectious disease. Mathematical Biosciences, 2013, 241, 49-55.	0.9	66
31	Wavelet transform analysis for lithological characteristics identification in siliciclastic oil fields. Journal of Applied Geophysics, 2013, 98, 298-308.	0.9	53
32	SPATIOTEMPORAL DYNAMICS OF TELEGRAPH REACTION-DIFFUSION PREDATOR-PREY MODELS. , 2013, , .		0
33	A prospective cohort study to evaluate peridomestic infection as a determinant of dengue transmission: Protocol. BMC Public Health, 2012, 12, 262.	1.2	9
34	Towards uncertainty quantification and inference in the stochastic SIR epidemic model. Mathematical Biosciences, 2012, 240, 250-259.	0.9	14
35	A method for aquifer identification in petroleum reservoirs: A case study of Puerto Ceiba oilfield. Journal of Petroleum Science and Engineering, 2012, 94-95, 55-65.	2.1	8
36	A model for coupling within-host and between-host dynamics in an infectious disease. Nonlinear Dynamics, 2012, 68, 401-411.	2.7	59

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37	Early Outbreak of 2009 Influenza A (H1N1) in Mexico Prior to Identification of pH1N1 Virus. PLoS ONE, 2011, 6, e23853.	1.1	16
38	A model for the A(H1N1) epidemic in Mexico, including social isolation. Salud Publica De Mexico, 2011, 53, 40-47.	0.1	8
39	Application of Pattern Recognition Techniques to Hydrogeological Modeling of Mature Oilfields. Lecture Notes in Computer Science, 2011, , 85-94.	1.0	0
40	Evolution of dengue virus in Mexico is characterized by frequent lineage replacement. Archives of Virology, 2010, 155, 1401-1412.	0.9	55
41	MULTISTABILITY AND SUBTHRESHOLD ENDEMIC STATES IN A MODEL FOR THE DYNAMICS OF NONSTERILIZING HIV VACCINES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 1741-1748.	0.7	0
42	Phenotypic Switching and Mutation in the Presence of a Biocide: No Replication of Phenotypic Variant. , 2008, , 221-242.		0
43	Coexistence in metacommunities: A tree-species model. Mathematical Biosciences, 2006, 202, 42-56.	0.9	6
44	Germination responses of annual plants to substrate type, rainfall, and temperature in a semi-arid inter-tropical region in Mexico. Journal of Arid Environments, 2006, 67, 416-427.	1.2	18
45	EQUILIBRIUM MULTIPLICITY IN A CARDIOVASCULAR SYSTEM MODEL. Journal of Biological Systems, 2006, 14, 445-461.	0.5	1
46	THEORETICAL STUDY OF A BIOFILM LIFE CYCLE: GROWTH, NUTRIENT DEPLETION AND DETACHMENT. , 2006, , .		1
47	Porosity and tortuosity relations as revealed by a mathematical model of biofilm structure. Journal of Theoretical Biology, 2005, 233, 245-251.	0.8	9
48	Multistability in an open recruitment food web model. Applied Mathematics and Computation, 2005, 163, 275-294.	1.4	14
49	Detachment and diffusive-convective transport in an evolving heterogeneous two-dimensional biofilm hybrid model. Physical Review E, 2004, 70, 061909.	0.8	5
50	An epidemiology model that includes a leaky vaccine with a general waning function. Discrete and Continuous Dynamical Systems - Series B, 2004, 4, 479-495.	0.5	29
51	Coexistence in a Competitive Parasitoid-host System. Journal of Theoretical Biology, 2003, 221, 61-77.	0.8	4
52	Could widespread use of combination antiretroviral therapy eradicate HIV epidemics?. Lancet Infectious Diseases, The, 2002, 2, 487-493.	4.6	183
53	M-matrices and local stability in epidemic models. Mathematical and Computer Modelling, 2002, 36, 491-501.	2.0	9
54	FEEDBACK CONTROL OF THE CHEMOTHERAPY OF HIV. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2000, 10, 2207-2219.	0.7	42

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55	A simple vaccination model with multiple endemic states. <i>Mathematical Biosciences</i> , 2000, 164, 183-201.	0.9	345
56	Extinction Thresholds and Metapopulation Persistence in Dynamic Landscapes. <i>American Naturalist</i> , 2000, 156, 478-494.	1.0	264
57	Density-dependent dynamics and superinfection in an epidemic model. <i>Mathematical Medicine and Biology</i> , 1999, 16, 307-317.	0.8	20
58	Threshold Parameters and Metapopulation Persistence. <i>Bulletin of Mathematical Biology</i> , 1999, 61, 341-353.	0.9	8
59	On the Relationship Between Evolution of Virulence and Host Demography. <i>Journal of Theoretical Biology</i> , 1998, 192, 437-444.	0.8	30
60	Competitive exclusion in a vector-host model for the dengue fever. <i>Journal of Mathematical Biology</i> , 1997, 35, 523-544.	0.8	286
61	Effects of treatment and prevalence-dependent recruitment on the dynamics of a fatal disease. <i>Mathematical Medicine and Biology</i> , 1996, 13, 175-192.	0.8	33
62	Community treatment of HIV-1: initial stage and asymptotic dynamics. <i>BioSystems</i> , 1995, 35, 75-81.	0.9	16
63	Modelling the effect of treatment and behavioral change in HIV transmission dynamics. <i>Journal of Mathematical Biology</i> , 1994, 32, 233-249.	0.8	47
64	Habitat suitability and herbivore dynamics. <i>BioSystems</i> , 1994, 32, 37-47.	0.9	4
65	A Model for Chagas Disease Involving Transmission by Vectors and Blood Transfusion. <i>Theoretical Population Biology</i> , 1994, 46, 1-31.	0.5	78
66	An epidemiological model for the dynamics of Chagas' disease. <i>BioSystems</i> , 1991, 26, 127-134.	0.9	35