

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	A simple vaccination model with multiple endemic states. <i>Mathematical Biosciences</i> , 2000, 164, 183-201.	0.9	345
2	Competitive exclusion in a vector-host model for the dengue fever. <i>Journal of Mathematical Biology</i> , 1997, 35, 523-544.	0.8	286
3	Extinction Thresholds and Metapopulation Persistence in Dynamic Landscapes. <i>American Naturalist</i> , 2000, 156, 478-494.	1.0	264
4	Climate, environmental and socio-economic change: weighing up the balance in vector-borne disease transmission. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2015, 370, 20130551.	1.8	215
5	Could widespread use of combination antiretroviral therapy eradicate HIV epidemics?. <i>Lancet Infectious Diseases</i> , The, 2002, 2, 487-493.	4.6	183
6	In-host Mathematical Modelling of COVID-19 in Humans. <i>Annual Reviews in Control</i> , 2020, 50, 448-456.	4.4	163
7	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
8	A Model for Chagas Disease Involving Transmission by Vectors and Blood Transfusion. <i>Theoretical Population Biology</i> , 1994, 46, 1-31.	0.5	78
9	A mathematical model for coupling within-host and between-host dynamics in an environmentally-driven infectious disease. <i>Mathematical Biosciences</i> , 2013, 241, 49-55.	0.9	66
10	A model for coupling within-host and between-host dynamics in an infectious disease. <i>Nonlinear Dynamics</i> , 2012, 68, 401-411.	2.7	59
11	Evolution of dengue virus in Mexico is characterized by frequent lineage replacement. <i>Archives of Virology</i> , 2010, 155, 1401-1412.	0.9	55
12	Wavelet transform analysis for lithological characteristics identification in siliciclastic oil fields. <i>Journal of Applied Geophysics</i> , 2013, 98, 298-308.	0.9	53
13	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
14	FEEDBACK CONTROL OF THE CHEMOTHERAPY OF HIV. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2000, 10, 2207-2219.	0.7	42
15	Coupled within-host and between-host dynamics and evolution of virulence. <i>Mathematical Biosciences</i> , 2015, 270, 204-212.	0.9	36
16	An epidemiological model for the dynamics of Chagas' disease. <i>BioSystems</i> , 1991, 26, 127-134.	0.9	35
17	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
18	Sex, Mosquitoes and Epidemics: An Evaluation of Zika Disease Dynamics. <i>Bulletin of Mathematical Biology</i> , 2016, 78, 2228-2242.	0.9	31

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19	On the Relationship Between Evolution of Virulence and Host Demography. <i>Journal of Theoretical Biology</i> , 1998, 192, 437-444.	0.8	30
20	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
21	An epidemiology model that includes a leaky vaccine with a general waning function. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2004, 4, 479-495.	0.5	29
22	Facies Recognition Using Multifractal Hurst Analysis: Applications to Well-Log Data. <i>Mathematical Geosciences</i> , 2013, 45, 471-486.	1.4	24
23	Using posterior predictive distributions to analyse epidemic models: COVID-19 in Mexico City. <i>Physical Biology</i> , 2020, 17, 065001.	0.8	21
24	Density-dependent dynamics and superinfection in an epidemic model. <i>Mathematical Medicine and Biology</i> , 1999, 16, 307-317.	0.8	20
25	Superinfection between Influenza and RSV Alternating Patterns in San Luis Potosí-State, México. <i>PLoS ONE</i> , 2015, 10, e0115674.	1.1	20
26	Peridomestic Infection as a Determining Factor of Dengue Transmission. <i>PLoS Neglected Tropical Diseases</i> , 2015, 9, e0004296.	1.3	20
27	A descriptive study of fracture networks in rocks using complex network metrics. <i>Computers and Geosciences</i> , 2016, 88, 97-114.	2.0	20
28	THE “UNHOLY•CHIKUNGUNYA” “DENGUE” “ZIKA TRINITY: A THEORETICAL ANALYSIS. <i>Journal of Biological Systems</i> , 2017, 25, 545-585.	0.5	19
29	Germination responses of annual plants to substrate type, rainfall, and temperature in a semi-arid inter-tropical region in Mexico. <i>Journal of Arid Environments</i> , 2006, 67, 416-427.	1.2	18
30	A methodology for the characterization of flow conductivity through the identification of communities in samples of fractured rocks. <i>Expert Systems With Applications</i> , 2014, 41, 811-820.	4.4	17
31	Community treatment of HIV-1: initial stage and asymptotic dynamics. <i>BioSystems</i> , 1995, 35, 75-81.	0.9	16
32	The role of animal grazing in the spread of Chagas disease. <i>Journal of Theoretical Biology</i> , 2018, 457, 19-28.	0.8	16
33	Early Outbreak of 2009 Influenza A (H1N1) in Mexico Prior to Identification of pH1N1 Virus. <i>PLoS ONE</i> , 2011, 6, e23853.	1.1	16
34	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
35	Transmission dynamics of two dengue serotypes with vaccination scenarios. <i>Mathematical Biosciences</i> , 2017, 287, 54-71.	0.9	15
36	Multistability in an open recruitment food web model. <i>Applied Mathematics and Computation</i> , 2005, 163, 275-294.	1.4	14

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37	Towards uncertainty quantification and inference in the stochastic SIR epidemic model. <i>Mathematical Biosciences</i> , 2012, 240, 250-259.	0.9	14
38	Introducing a Dengue Vaccine to Mexico: Development of a System for Evidence-Based Public Policy Recommendations. <i>PLoS Neglected Tropical Diseases</i> , 2014, 8, e3009.	1.3	14
39	A DFA approach in well-logs for the identification of facies associations. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2013, 392, 6015-6024.	1.2	10
40	Robust qualitative estimation of time-varying contact rates in uncertain epidemics. <i>Epidemics</i> , 2018, 24, 98-104.	1.5	10
41	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
42	M-matrices and local stability in epidemic models. <i>Mathematical and Computer Modelling</i> , 2002, 36, 491-501.	2.0	9
43	Porosity and tortuosity relations as revealed by a mathematical model of biofilm structure. <i>Journal of Theoretical Biology</i> , 2005, 233, 245-251.	0.8	9
44	A prospective cohort study to evaluate peridomestic infection as a determinant of dengue transmission: Protocol. <i>BMC Public Health</i> , 2012, 12, 262.	1.2	9
45	Telegraphic double porosity models for head transient behavior in naturally fractured aquifers. <i>Water Resources Research</i> , 2013, 49, 4399-4408.	1.7	9
46	Threshold Parameters and Metapopulation Persistence. <i>Bulletin of Mathematical Biology</i> , 1999, 61, 341-353.	0.9	8
47	A method for aquifer identification in petroleum reservoirs: A case study of Puerto Ceiba oilfield. <i>Journal of Petroleum Science and Engineering</i> , 2012, 94-95, 55-65.	2.1	8
48	A model for the A(H1N1) epidemic in Mexico, including social isolation. <i>Salud Publica De Mexico</i> , 2011, 53, 40-47.	0.1	8
49	Coexistence in metacommunities: A tree-species model. <i>Mathematical Biosciences</i> , 2006, 202, 42-56.	0.9	6
50	The dynamics of technological change under constraints: Adopters and resources. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2014, 19, 3299-3317.	0.5	6
51	Detachment and diffusive-convective transport in an evolving heterogeneous two-dimensional biofilm hybrid model. <i>Physical Review E</i> , 2004, 70, 061909.	0.8	5
52	Model for breast cancer diversity and spatial heterogeneity. <i>Physical Review E</i> , 2018, 98, .	0.8	5
53	Habitat suitability and herbivore dynamics. <i>BioSystems</i> , 1994, 32, 37-47.	0.9	4
54	Coexistence in a Competitive Parasitoid-host System. <i>Journal of Theoretical Biology</i> , 2003, 221, 61-77.	0.8	4

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55	Bayesian deconvolution of oil well test data using Gaussian processes. Journal of Applied Statistics, 2016, 43, 721-737.	0.6	3
56	Pressure transient analysis with exponential and power law boundary flux. Journal of Petroleum Science and Engineering, 2014, 121, 149-158.	2.1	2
57	An exploration of pressure dynamics using differential equations defined on a fractal geometry. Computational and Applied Mathematics, 2018, 37, 1279-1293.	1.3	2
58	Sex-biased prevalence in infections with heterosexual, direct, and vector-mediated transmission: A theoretical analysis. Mathematical Biosciences and Engineering, 2017, 15, 125-140.	1.0	2
59	EQUILIBRIUM MULTIPLICITY IN A CARDIOVASCULAR SYSTEM MODEL. Journal of Biological Systems, 2006, 14, 445-461.	0.5	1
60	THEORETICAL STUDY OF A BIOFILM LIFE CYCLE: GROWTH, NUTRIENT DEPLETION AND DETACHMENT. , 2006, , .		1
61	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
62	SPATIOTEMPORAL DYNAMICS OF TELEGRAPH REACTION-DIFFUSION PREDATOR-PREY MODELS. , 2013, , .		0
63	A positivity-preserving central-upwind scheme for isentropic two-phase flows through deviated pipes. ESAIM: Mathematical Modelling and Numerical Analysis, 2019, 53, 1433-1457.	0.8	0
64	Application of Pattern Recognition Techniques to Hydrogeological Modeling of Mature Oilfields. Lecture Notes in Computer Science, 2011, , 85-94.	1.0	0
65	On carrying-capacity construction, metapopulations and density-dependent mortality. Discrete and Continuous Dynamical Systems - Series B, 2017, 22, 1099-1110.	0.5	0
66	Phenotypic Switching and Mutation in the Presence of a Biocide: No Replication of Phenotypic Variant. , 2008, , 221-242.		0