Juan Ospina

List of Publications by Year
in descending order

37 papers	231 citations	1478280 6 h-index	1058333 14 g-index
57 all docs	57 docs citations	57 times ranked	322 citing authors

#	Article	IF	Citations
1	Using Phenomenological Models to Characterize Transmissibility and Forecast Patterns and Final Burden of Zika Epidemics. PLOS Currents, 2016, 8, .	1.4	123
2	Two-dimensional transport analysis of transdermal drug absorption with a non-perfect sink boundary condition at the skin-capillary interface. Mathematical Biosciences, 2013, 244, 58-67.	0.9	16
3	TWO-DIMENSIONAL SOLUTION AND ANALYSIS OF A CYLINDRICAL MATRIX DEVICE WITH A CIRCULAR RELEASE AREA. Chemical Engineering Communications, 2013, 200, 115-138.	1.5	14
4	A Comparative Assessment of Epidemiologically Different Cutaneous Leishmaniasis Outbreaks in Madrid, Spain and Tolima, Colombia: An Estimation of the Reproduction Number via a Mathematical Model. Tropical Medicine and Infectious Disease, 2018, 3, 43.	0.9	12
5	Approximated analytical solution to an Ebola optimal control problem. International Journal for Computational Methods in Engineering Science and Mechanics, 2016, 17, 382-390.	1.4	8
6	Stratifying the potential local transmission of Zika in municipalities of Antioquia, Colombia. Tropical Medicine and International Health, 2017, 22, 1249-1265.	1.0	8
7	A FIRST-ORDER TIME CONSTANT ESTIMATION FOR NONLINEAR DIFFUSION PROBLEMS. Chemical Engineering Communications, 2014, 201, 719-736.	1.5	6
8	Prediction of in-vivo iontophoretic drug release data from in-vitro experiments—insights from modeling. Mathematical Biosciences, 2015, 270, 106-114.	0.9	5
9	A three-dimensional semi-analytical solution for predicting drug release through the orifice of a spherical device. International Journal of Pharmaceutics, 2016, 509, 477-482.	2.6	5
10	On the effusion time of drugs from the open pore of a spherical vesicle. Physica A: Statistical Mechanics and Its Applications, 2016, 451, 366-372.	1.2	5
11	Controlled drug release from a spheroidal matrix. Physica A: Statistical Mechanics and Its Applications, 2019, 518, 30-37.	1.2	3
12	Possible topological quantum computation via Khovanov homology: D-brane topological quantum computer. , 2009, , .		2
13	The dynamics of shrinking and expanding drug-loaded microspheres: A semi-empirical approach. European Journal of Pharmaceutical Sciences, 2014, 58, 55-62.	1.9	2
14	Mathematical modeling of Chikungunya fever control. , 2015, , .		2
15	Two-Dimensional Description of Absorption in Humans after Dermal Exposure to Volatile Organic Compounds. Chemical Engineering Communications, 2017, 204, 698-704.	1.5	2
16	Algebraic Analysis of Social Networks for Bio-surveillance: The Cases of SARS-Beijing-2003 and AH1N1 Influenza-México-2009. Advances in Experimental Medicine and Biology, 2011, 696, 751-761.	0.8	2
17	Using computer algebra for Yang-Baxterization applied to quantum computing. , 2006, , .		1
18	Possible quantum algorithms for the Bollobas-Riordan-Tutte polynomial of a ribbon graph. , 2008, , .		1

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19	Mathematical model for Dengue with three states of infection. Proceedings of SPIE, 2012, , .	0.8	1
20	Possible quantum algorithm for the Lipshitz-Sarkar-Steenrod square for Khovanov homology. , 2013, , .		1
21	Computing Tutte polynomials of contact networks in classrooms. , 2013, , .		1
22	The critical proportion of immune individuals needed to control hepatitis B. , 2016, , .		1
23	Transient analysis of drug delivery from a toroidal membrane: Applications for medicated vaginal rings. European Journal of Pharmaceutical Sciences, 2020, 141, 105114.	1.9	1
24	Tutte Polynomials and Topological Quantum Algorithms in Social Network Analysis for Epidemiology, Bio-surveillance and Bio-security. Lecture Notes in Computer Science, 2008, , 74-84.	1.0	1
25	Biomedical Computer Vision Using Computer Algebra: Analysis of a Case of Rhinocerebral Mucormycosis in a Diabetic Boy. Advances in Intelligent and Soft Computing, 2010, , 279-286.	0.2	1
26	Two qutrits universal quantum gates from the nine-dimensional unitary solutions of the Yang-Baxter equation. , 2007, , .		0
27	Quantum algorithms for virtual Jones polynomials via Thistlethwaite theorems. Proceedings of SPIE, 2010, , .	0.8	0
28	Solving stochastic epidemiological models using computer algebra. , 2011, , .		0
29	Possible universal quantum algorithms for generalized Khovanov homology and the Rasmussen's invariant. , 2012, , .		0
30	Topological quantum computation of the Dold-Thom functor. , 2014, , .		0
31	Optimal control in a model of malaria with differential susceptibility. , 2014, , .		0
32	Analysis of a generalized model for influenza including differential susceptibility due to immunosuppression. Proceedings of SPIE, 2014, , .	0.8	0
33	Topological and geometrical quantum computation in cohesive Khovanov homotopy type theory. , 2015, , .		0
34	Three-dimensional analyses of a perforated cylindrical drug delivery device. International Journal of Pharmaceutics, 2015, 481, 64-70.	2.6	0
35	Dynamic analysis and performance evaluation of the BIAcore surface plasmon resonance biosensor. Proceedings of SPIE, 2015, , .	0.8	0
36	The development of a peak-time criterion for designing controlled-release devices. European Journal of Pharmaceutical Sciences, 2016, 91, 64-73.	1.9	0

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37	Dynamics of an electrochemical biosensor for the detection of toxic substances in water. , 2016, , .		0