Gabriel F Calvo

List of Publications by Year
in descending order

66 papers	1,618 citations	331538 21 h-index	315616 38 g-index
70 all docs	70 docs citations	70 times ranked	1596 citing authors

#	Article	IF	Citations
1	Behavioural immune landscapes of inflammation. Nature, 2022, 601, 415-421.	13.7	53
2	Modelling the effect of vascular status on tumour evolution and outcome after thermal therapy. Applied Mathematical Modelling, 2022, 110, 207-240.	2.2	3
3	CAR T cell therapy in B-cell acute lymphoblastic leukaemia: Insights from mathematical models. Communications in Nonlinear Science and Numerical Simulation, 2021, 94, 105570.	1.7	20
4	The interplay of blood flow and temperature in regional hyperthermia: a mathematical approach. Royal Society Open Science, 2021, 8, 201234.	1.1	7
5	A mesoscopic simulator to uncover heterogeneity and evolutionary dynamics in tumors. PLoS Computational Biology, 2021, 17, e1008266.	1.5	10
6	Evolutionary dynamics at the tumor edge reveal metabolic imaging biomarkers. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	21
7	A heuristic algorithm for optimal cost design of gravity-fed water distribution networks. a real case study. Applied Mathematical Modelling, 2021, 95, 379-395.	2.2	4
8	Influence of Coating and Size of Magnetic Nanoparticles on Cellular Uptake for In Vitro MRI. Nanomaterials, 2021, 11, 2888.	1.9	15
9	Identification of a transient state during the acquisition of temozolomide resistance in glioblastoma. Cell Death and Disease, 2020, 11, 19.	2.7	53
10	Co-option of Neutrophil Fates by Tissue Environments. Cell, 2020, 183, 1282-1297.e18.	13.5	246
11	Mitochondria transfer from tumor-activated stromal cells (TASC) to primary Glioblastoma cells. Biochemical and Biophysical Research Communications, 2020, 533, 139-147.	1.0	36
12	Universal scaling laws rule explosive growth in human cancers. Nature Physics, 2020, 16, 1232-1237.	6.5	50
13	SURFWET: A biokinetic model for surface flow constructed wetlands. Science of the Total Environment, 2020, 723, 137650.	3.9	5
14	Interplay of Darwinian Selection, Lamarckian Induction and Microvesicle Transfer on Drug Resistance in Cancer. Scientific Reports, 2019, 9, 9332.	1.6	31
15	Ultimate dynamics and optimal control of a multi-compartment model of tumor resistance to chemotherapy. Discrete and Continuous Dynamical Systems - Series B, 2019, 24, 2017-2038.	0.5	4
16	Changes in the retreatment radiation tolerance of the spinal cord with time after the initial treatment. International Journal of Radiation Biology, 2018, 94, 515-531.	1.0	14
17	Labile haemoglobin as a glycaemic biomarker for patient-specific monitoring of diabetes: mathematical modelling approach. Journal of the Royal Society Interface, 2018, 15, 20180224.	1.5	1
18	Stochastic modelling of slow-progressing tumors: Analysis and applications to the cell interplay and control of low grade gliomas. Communications in Nonlinear Science and Numerical Simulation, 2017, 49, 63-80.	1.7	7

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19	Chemical Reactions Using a Non-Equilibrium Wigner Function Approach. Entropy, 2016, 18, 369.	1.1	3
20	Hypoxia in Gliomas: Opening Therapeutical Opportunities Using a Mathematical-Based Approach. Advances in Experimental Medicine and Biology, 2016, 936, 11-29.	0.8	4
21	Basal 18F-FDG PET/CT as a predictive biomarker of tumor response for neoadjuvant therapy in breast cancer. Revista Espanola De Medicina Nuclear E Imagen Molecular, 2016, 35, 81-87.	0.0	1
22	Linear Canonical Transforms on Quantum States of Light. Springer Series in Optical Sciences, 2016, , 429-453.	0.5	1
23	Nonlinear waves in a simple model of high-grade glioma. Applied Mathematics and Nonlinear Sciences, 2016, 1, 405-422.	0.9	7
24	Combined therapies of antithrombotics and antioxidants delayin silicobrain tumour progression. Mathematical Medicine and Biology, 2015, 32, 239-262.	0.8	22
25	Effective particle methods for Fisherâ€“Kolmogorov equations: Theory and applications to brain tumor dynamics. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 3267-3283.	1.7	33
26	Modeling the connection between primary and metastatic tumors. Journal of Mathematical Biology, 2013, 67, 657-692.	0.8	8
27	Two-dimensional crystallography introduced by the sprinkler watering problem. European Journal of Physics, 2012, 33, 167-177.	0.3	1
28	Hypoxic Cell Waves Around Necrotic Cores in Glioblastoma: A Biomathematical Model and Its Therapeutic Implications. Bulletin of Mathematical Biology, 2012, 74, 2875-2896.	0.9	99
29	A Mathematical Model for the Glucose-Lactate Metabolism of in Vitro Cancer Cells. Bulletin of Mathematical Biology, 2012, 74, 1125-1142.	0.9	37
30	A transfer integral technique for solving a class of linear integral equations: Convergence and applications to DNA. Journal of Computational and Applied Mathematics, 2012, 236, 3561-3571.	1.1	2
31	Bright solitary waves in malignant gliomas. Physical Review E, 2011, 84, 021921.	0.8	41
32	Constrained macromolecular chains at thermal equilibrium: A quantum-mechanical approach. European Physical Journal: Special Topics, 2011, 200, 225-258.	1.2	2
33	Spin and orbital angular momentum propagation in anisotropic media: theory. Journal of Optics (United Kingdom), 2011, 13, 064019.	1.0	13
34	Transferring orbital and spin angular momenta of light to atoms. New Journal of Physics, 2010, 12, 083053.	1.2	140
35	Photoionization with orbital angular momentum beams. Optics Express, 2010, 18, 3660.	1.7	103
36	Exact solutions for the quintic nonlinear SchrÃ¶dinger equation with time and space modulated nonlinearities and potentials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 448-453.	0.9	73

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37	Exact bright and dark spatial soliton solutions in saturable nonlinear media. Chaos, Solitons and Fractals, 2009, 41, 1791-1798.	2.5	14
38	Manipulation of single-photon states encoded in transverse spatial modes: Possible and impossible tasks. Physical Review A, 2008, 77, .	1.0	6
39	The time duration for DNA thermal denaturation. Journal of Physics Condensed Matter, 2008, 20, 035101.	0.7	12
40	Measuring the Complete Transverse Spatial Mode Spectrum of a Wave Field. Physical Review Letters, 2008, 100, 173902.	2.9	12
41	Measuring two-photon orbital angular momentum entanglement. Physical Review A, 2007, 75, .	1.0	24
42	Spin-induced angular momentum switching. Optics Letters, 2007, 32, 838.	1.7	37
43	Quantum field theory of photons with orbital angular momentum. Physical Review A, 2006, 73, .	1.0	78
44	Three-dimensional models for homogeneous DNA near denaturation. Journal of Physics Condensed Matter, 2005, 17, 7755-7781.	0.7	8
45	Quantum gates using the orbital angular momentum of photons. , 2005, 5866, 72.		0
46	Wigner representation and geometric transformations of optical orbital angular momentum spatial modes. Optics Letters, 2005, 30, 1207.	1.7	51
47	Flexible macromolecular chains with constraints: a quantum mechanical approach. Journal of Physics Condensed Matter, 2004, 16, S2037-S2046.	0.7	3
48	Confined propagation of thermal neutrons using nanotubes. Nanotechnology, 2004, 15, 1870-1876.	1.3	2
49	Transition from local to nonlocal photorefractive nonlinearity on increasing spatial dimensionality. Optics Communications, 2004, 233, 439-444.	1.0	2
50	Two-dimensional soliton-induced refractive index change in photorefractive crystals. Optics Communications, 2003, 227, 193-202.	1.0	13
51	Self-trapping along light-induced singularity of space charge in fast photorefractive materials. , 2003, 4829, 939.		0
52	Isotropic versus anisotropic modeling of photorefractive solitons. Physical Review E, 2002, 65, 066610.	0.8	25
53	Solitonlike Beam Propagation along Light-Induced Singularity of Space Charge in Fast Photorefractive Media. Physical Review Letters, 2002, 89, 033902.	2.9	15
54	Locality vs. nonlocality of (2+1)-dimensional light-induced space-charge field in photorefractive crystals. Europhysics Letters, 2002, 60, 847-853.	0.7	14

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55	Grating translation technique for vectorial beam coupling and its applications to linear signal detection. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 1564.	0.9	10
56	Parametric scattering processes in photorefractive periodically poled lithium niobate. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 1582.	0.9	6
57	Models for polymers and biopolymers based on quantum mechanics. Molecular Physics, 2002, 100, 2957-2970.	0.8	8
58	Dipole-mode vector solitons in anisotropic nonlocal self-focusing media. Optics Letters, 2001, 26, 1185.	1.7	36
59	Linear phase demodulation in photorefractive crystals with nonlocal response. Journal of Applied Physics, 2001, 90, 3135-3141.	1.1	7
60	Photorefractive ac response beyond the low-contrast limit. Optical Materials, 2001, 18, 175-178.	1.7	1
61	Bipolar two-dimensional analysis of grating dynamics in photorefractive thin films. Journal of Optics, 2001, 3, 413-420.	1.5	0
62	Degenerate Parametric Light Scattering in Periodically PoledLiNbO3:Y:Fe. Physical Review Letters, 2001, 86, 4021-4024.	2.9	25
63	Quantum statistical mechanics of closed-ring molecular chains. Macromolecular Theory and Simulations, 2000, 9, 585-599.	0.6	2
64	Singular Behavior of Light-Induced Space Charge in Photorefractive Media under an ac Field. Physical Review Letters, 2000, 84, 3839-3842.	2.9	28
65	Effect of domain structure fluctuations on the photorefractive response of periodically poled lithium niobate. Physical Review B, 2000, 62, 13182-13187.	1.1	5
66	Quantum statistical mechanics of closed-ring molecular chains. Macromolecular Theory and Simulations, 2000, 9, 585-599.	0.6	2