Gastón García-Calderón

List of Publications by Year
in descending order

52 papers	879 citations	516710 16 h-index	477307 29 g-index
52 all docs	52 docs citations	52 times ranked	236 citing authors

#	Article	IF	Citations
1	Resonant states and their uses. Nuclear Physics A, 1976, 265, 443-460.	1.5	143
2	Transient effects and delay time in the dynamics of resonant tunneling. Physical Review A, 1997, 55, 3361-3370.	2.5	85
3	Time dependence of the probability density in the transient regime for tunneling. Physical Review A, 2001, 64, .	2.5	43
4	Resonant-state expansions and the long-time behavior of quantum decay. Physical Review A, 2007, 76, .	2.5	39
5	Theory of Resonant States: An Exact Analytical Approach for Open Quantum Systems. Advances in Quantum Chemistry, 2010, 60, 407-455.	0.8	34
6	The effect of asymmetry on resonant tunneling in one dimension. Solid State Communications, 1987, 62, 441-447.	1.9	33
7	Time evolution of decay of two identical quantum particles. Physical Review A, 2011, 84, .	2.5	32
8	Full-time nonexponential decay in double-barrier quantum structures. Physical Review A, 2006, 73, .	2.5	30
9	Resonance expansions in quantum mechanics. European Physical Journal D, 2005, 55, 1141-1150.	0.4	26
10	Description of overlapping resonances in multibarrier tunneling structures. Physical Review B, 1993, 47, 9572-9576.	3.2	25
11	Survival probability of a single resonance. Journal of Physics A, 2001, 34, 4155-4165.	1.6	24
12	Equivalence between the real-time Feynman histories and the quantum-shutter approaches for the â€œpassage timeâ€•in tunneling. Physical Review A, 2003, 67, .	2.5	24
13	Resonant states for complex potentials and spectral singularities. Physical Review A, 2013, 87, .	2.5	24
14	Properties of the dwell time and the transmission and reflection times for resonant tunneling. Solid State Communications, 1989, 71, 237-241.	1.9	22
15	Hermitian and non-Hermitian formulations of the time evolution of quantum decay. Physica Scripta, 2012, T151, 014076.	2.5	22
16	Transient tunneling effects of resonance doublets in triple barrier systems. Physical Review B, 2002, 66, .	3.2	17
17	Transient effects and reconstruction of the energy spectra in the time evolution of transmitted Gaussian wave packets. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 185301.	2.1	17
18	Delay time and tunneling transient phenomena. Physical Review A, 2002, 66, .	2.5	16

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19	Nonexponential tunneling decay of a single ultracold atom. Physical Review A, 2016, 93, .	2.5	16
20	Quantum shutter transient solutions and the delay time for theÎ´potential. Physical Review A, 2003, 68, .	2.5	15
21	Survival probability of multibarrier resonance systems: Exact analytical approach. Physical Review B, 2007, 76, .	3.2	15
22	Time scale of forerunners in quantum tunneling. Physical Review A, 2002, 66, .	2.5	13
23	Quantum-shutter approach to tunneling time scales with wave packets. Physical Review A, 2005, 72, .	2.5	12
24	An expansion of continuum wave functions in terms of resonant states. Nuclear Physics A, 1986, 458, 560-572.	1.5	11
25	Time-domain resonances and the ultimate fate of a decaying quantum state. Physical Review A, 2013, 88, .	2.5	11
26	Effect of inelastic processes on the elastic width in resonant structures. Physical Review B, 1992, 46, 9784-9787.	3.2	10
27	Resonant States and the Decay Process. , 1992, , 252-272.		10
28	Transient time-domain resonances and the time scale for tunneling. Physical Review A, 2003, 68, .	2.5	10
29	Unified analytical description of the time evolution of decay for initial states formed by wave-packet scattering and by initial decaying states in quantum systems. Physical Review A, 2011, 84, .	2.5	10
30	Internal dynamics of multibarrier systems for pulsed quantum decay. Physical Review A, 2009, 79, .	2.5	9
31	Strong overlap and transmission in triple-barrier resonant structures. Physical Review B, 1994, 49, 14016-14019.	3.2	7
32	Time evolution of decay for purely absorptive potentials: The effect of spectral singularities. Physical Review A, 2014, 90, .	2.5	7
33	Heisenberg uncertainty relations for the non-Hermitian resonance-state solutions to the SchrÃ¶dinger equation. Physical Review A, 2019, 99, .	2.5	7
34	Theory of coherent and incoherent processes in quantum corrals. Physical Review B, 2006, 73, .	3.2	6
35	Purely discrete expansion of the reflection amplitude involving resonant states. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 415303.	2.1	6
36	Effect of disorder in specific realizations of multibarrier random systems. Physical Review B, 1997, 56, 4845-4852.	3.2	5

#	Article	IF	Citations
37	Invisibility of quantum systems to tunneling of matter waves. Physical Review A, 2009, 79, .	2.5	5
38	Delay time as a quantum transient interference effect. Physical Review A, 2012, 86, .	2.5	5
39	Theory of resonant scattering in two dimensions. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 035301.	2.1	4
40	Diffraction in time for tunneling invisibility in quantum systems. Physical Review A, 2013, 88, .	2.5	4
41	Interference in the time domain of a decaying particle with itself as the physical mechanism for the exponential-nonexponential transition in quantum decay. Physical Review A, 2019, 100, .	2.5	4
42	Unitarity of quantum tunneling decay for an analytical exact non-Hermitian resonant-state approach. Annals of Physics, 2021, 424, 168348.	2.8	4
43	Bound-state-induced persistent oscillations in the transient behavior of the probability density for the attractive δ potential. Physical Review A, 2010, 81, .	2.5	3
44	Exact analytical description of quantum transients in one-dimensional scattering. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 305302.	2.1	3
45	Time evolution of initial states that extend beyond the potential interaction region in quantum decay. Physical Review A, 2016, 94, .	2.5	3
46	Effect of antibound states in single barrier tunneling. Physical Review A, 2005, 71, .	2.5	2
47	Multibarrier-tunneling invisible systems. Physical Review A, 2014, 90, .	2.5	2
48	Buildup of symmetrization entanglement for the nonescape probability of two identical particles. Physical Review A, 2017, 96, .	2.5	2
49	Exact analytical non-Hermitian formulation of the time evolution of decay of one and two identical quantum particles. Journal of Physics: Conference Series, 2015, 626, 012064.	0.4	1
50	Underlying nonâ€‘Hermitian character of the Born rule in open quantum systems. Fortschritte Der Physik, 2017, 65, 1600037.	4.4	1
51	Effect of the resonance spectra in the propagation of two decaying entangled particles. Journal of Physics: Conference Series, 2019, 1275, 012029.	0.4	0
52	On Hermitian and non-Hermitian flux conservation for quantum tunneling decay. Quantum Studies: Mathematics and Foundations, 2021, 8, 179-190.	0.9	0