

# Gastón Garcá-a-Calderán

## List of Publications by Year in descending order

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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	On Hermitian and non-Hermitian flux conservation for quantum tunneling decay. <i>Quantum Studies: Mathematics and Foundations</i> , 2021, 8, 179-190.	0.9	0
2	Unitarity of quantum tunneling decay for an analytical exact non-Hermitian resonant-state approach. <i>Annals of Physics</i> , 2021, 424, 168348.	2.8	4
3	Effect of the resonance spectra in the propagation of two decaying entangled particles. <i>Journal of Physics: Conference Series</i> , 2019, 1275, 012029.	0.4	0
4	Interference in the time domain of a decaying particle with itself as the physical mechanism for the exponential-nonexponential transition in quantum decay. <i>Physical Review A</i> , 2019, 100, .	2.5	4
5	Heisenberg uncertainty relations for the non-Hermitian resonance-state solutions to the Schrödinger equation. <i>Physical Review A</i> , 2019, 99, .	2.5	7
6	Underlying non-Hermitian character of the Born rule in open quantum systems. <i>Fortschritte Der Physik</i> , 2017, 65, 1600037.	4.4	1
7	Buildup of symmetrization entanglement for the nonescape probability of two identical particles. <i>Physical Review A</i> , 2017, 96, .	2.5	2
8	Time evolution of initial states that extend beyond the potential interaction region in quantum decay. <i>Physical Review A</i> , 2016, 94, .	2.5	3
9	Nonexponential tunneling decay of a single ultracold atom. <i>Physical Review A</i> , 2016, 93, .	2.5	16
10	Exact analytical non-Hermitian formulation of the time evolution of decay of one and two identical quantum particles. <i>Journal of Physics: Conference Series</i> , 2015, 626, 012064.	0.4	1
11	Multibarrier-tunneling invisible systems. <i>Physical Review A</i> , 2014, 90, .	2.5	2
12	Time evolution of decay for purely absorptive potentials: The effect of spectral singularities. <i>Physical Review A</i> , 2014, 90, .	2.5	7
13	Time-domain resonances and the ultimate fate of a decaying quantum state. <i>Physical Review A</i> , 2013, 88, .	2.5	11
14	Resonant states for complex potentials and spectral singularities. <i>Physical Review A</i> , 2013, 87, .	2.5	24
15	Diffraction in time for tunneling invisibility in quantum systems. <i>Physical Review A</i> , 2013, 88, .	2.5	4
16	Hermitian and non-Hermitian formulations of the time evolution of quantum decay. <i>Physica Scripta</i> , 2012, T151, 014076.	2.5	22
17	Delay time as a quantum transient interference effect. <i>Physical Review A</i> , 2012, 86, .	2.5	5
18	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. <i>Physical Review A</i> , 2011, 84, .	2.5	10

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19	Exact analytical description of quantum transients in one-dimensional scattering. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 305302.	2.1	3
20	Time evolution of decay of two identical quantum particles. Physical Review A, 2011, 84, .	2.5	32
21	Bound-state-induced persistent oscillations in the transient behavior of the probability density for the attractive $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \langle \text{mml:mi} \hat{V} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ potential. Physical Review A, 2010, 81, .	2.5	3
22	Theory of resonant scattering in two dimensions. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 035301.	2.1	4
23	Purely discrete expansion of the reflection amplitude involving resonant states. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 415303.	2.1	6
24	Theory of Resonant States: An Exact Analytical Approach for Open Quantum Systems. Advances in Quantum Chemistry, 2010, 60, 407-455.	0.8	34
25	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
26	Invisibility of quantum systems to tunneling of matter waves. Physical Review A, 2009, 79, .	2.5	5
27	Internal dynamics of multibarrier systems for pulsed quantum decay. Physical Review A, 2009, 79, .	2.5	9
28	Resonant-state expansions and the long-time behavior of quantum decay. Physical Review A, 2007, 76, .	2.5	39
29	Survival probability of multibarrier resonance systems: Exact analytical approach. Physical Review B, 2007, 76, .	3.2	15
30	Full-time nonexponential decay in double-barrier quantum structures. Physical Review A, 2006, 73, .	2.5	30
31	Theory of coherent and incoherent processes in quantum corrals. Physical Review B, 2006, 73, .	3.2	6
32	Effect of antibound states in single barrier tunneling. Physical Review A, 2005, 71, .	2.5	2
33	Resonance expansions in quantum mechanics. European Physical Journal D, 2005, 55, 1141-1150.	0.4	26
34	Quantum-shutter approach to tunneling time scales with wave packets. Physical Review A, 2005, 72, .	2.5	12
35	Transient time-domain resonances and the time scale for tunneling. Physical Review A, 2003, 68, .	2.5	10
36	Equivalence between the real-time Feynman histories and the quantum-shutter approaches for the $\hat{\rho}$ passage time in tunneling. Physical Review A, 2003, 67, .	2.5	24

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37	Quantum shutter transient solutions and the delay time for the $\hat{V}$ potential. Physical Review A, 2003, 68, .	2.5	15
38	Delay time and tunneling transient phenomena. Physical Review A, 2002, 66, .	2.5	16
39	Time scale of forerunners in quantum tunneling. Physical Review A, 2002, 66, .	2.5	13
40	Transient tunneling effects of resonance doublets in triple barrier systems. Physical Review B, 2002, 66, .	3.2	17
41	Survival probability of a single resonance. Journal of Physics A, 2001, 34, 4155-4165.	1.6	24
42	Time dependence of the probability density in the transient regime for tunneling. Physical Review A, 2001, 64, .	2.5	43
43	Transient effects and delay time in the dynamics of resonant tunneling. Physical Review A, 1997, 55, 3361-3370.	2.5	85
44	Effect of disorder in specific realizations of multibarrier random systems. Physical Review B, 1997, 56, 4845-4852.	3.2	5
45	Strong overlap and transmission in triple-barrier resonant structures. Physical Review B, 1994, 49, 14016-14019.	3.2	7
46	Description of overlapping resonances in multibarrier tunneling structures. Physical Review B, 1993, 47, 9572-9576.	3.2	25
47	Effect of inelastic processes on the elastic width in resonant structures. Physical Review B, 1992, 46, 9784-9787.	3.2	10
48	Resonant States and the Decay Process. , 1992, , 252-272.		10
49	Properties of the dwell time and the transmission and reflection times for resonant tunneling. Solid State Communications, 1989, 71, 237-241.	1.9	22
50	The effect of asymmetry on resonant tunneling in one dimension. Solid State Communications, 1987, 62, 441-447.	1.9	33
51	An expansion of continuum wave functions in terms of resonant states. Nuclear Physics A, 1986, 458, 560-572.	1.5	11
52	Resonant states and their uses. Nuclear Physics A, 1976, 265, 443-460.	1.5	143