

Frank Gaitan

List of Publications by Year in descending order

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35
papers

576
citations

759233

12
h-index

677142

22
g-index

36
all docs

36
docs citations

36
times ranked

370
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental Determination of Ramsey Numbers. <i>Physical Review Letters</i> , 2013, 111, 130505.	7.8	75
2	Finding flows of a Navier–Stokes fluid through quantum computing. <i>Npj Quantum Information</i> , 2020, 6, .	6.7	65
3	Topological charge and chiral anomalies in fermi superfluids. <i>Annals of Physics</i> , 1987, 178, 89-109.	2.8	64
4	Quantum Error Correction and Fault Tolerant Quantum Computing. , 0, , .		57
5	Ramsey Numbers and Adiabatic Quantum Computing. <i>Physical Review Letters</i> , 2012, 108, 010501.	7.8	52
6	Graph isomorphism and adiabatic quantum computing. <i>Physical Review A</i> , 2014, 89, .	2.5	33
7	Microscopic analysis of the nondissipative force on a line vortex in a superconductor: Berry’s phase, momentum flow, and the Magnus force. <i>Physical Review B</i> , 1995, 51, 9061-9073.	3.2	30
8	Berry’s phase in the presence of a stochastically evolving environment: A geometric mechanism for energy-level broadening. <i>Physical Review A</i> , 1998, 58, 1665-1677.	2.5	20
9	Temporal interferometry: A mechanism for controlling qubit transitions during twisted rapid passage with possible application to quantum computing. <i>Physical Review A</i> , 2003, 68, .	2.5	18
10	Backflow and Its Consequences for the Intrinsic Orbital Angular Momentum in 3He-A : A Way to Understand Past Disagreements. <i>Annals of Physics</i> , 1994, 235, 390-412.	2.8	15
11	Finding Solutions of the Navier–Stokes Equations through Quantum Computing—Recent Progress, a Generalization, and Next Steps Forward. <i>Advanced Quantum Technologies</i> , 2021, 4, 2100055.	3.9	14
12	Solving Burgers’ equation with quantum computing. <i>Quantum Information Processing</i> , 2022, 21, 1.	2.2	14
13	SIMULATION OF QUANTUM ADIABATIC SEARCH IN THE PRESENCE OF NOISE. <i>International Journal of Quantum Information</i> , 2006, 04, 843-870.	1.1	13
14	Non-adiabatic rapid passage. <i>Chemical Physics Letters</i> , 2003, 375, 429-434.	2.6	12
15	Berry’s Phase and a Possible New Topological Current Drive in Certain Weak Link Superconducting Systems. <i>Physical Review Letters</i> , 1996, 76, 4404-4407.	7.8	11
16	Berry’s Phase in the Presence of a Non-adiabatic Environment with an Application to Magnetic Resonance. <i>Journal of Magnetic Resonance</i> , 1999, 139, 152-164.	2.1	11
17	Density functional theory and quantum computation. <i>Physical Review B</i> , 2009, 79, .	3.2	11
18	Berry’s phase and the Wess-Zumino effective action in 3He-A . <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1989, 136, 433-440.	2.1	9

#	ARTICLE	IF	CITATIONS
19	Demonstration of anomalous symmetry breaking in $3\text{HeI}-\text{A}$. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1990, 151, 551-561.	2.1	6
20	QUANTUM ERROR CORRECTION AND FAULT-TOLERANT QUANTUM COMPUTING. , 2009, , .		6
21	Backflow and its consequences for the intrinsic orbital angular momentum in $3\text{HeI}-\text{A}$: a way to reconcile past disagreements. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1993, 178, 419-425.	2.1	4
22	Microscopical analysis of the non-dissipative force on a line vortex in a superconductor. <i>Journal of Physics Condensed Matter</i> , 1995, 7, L165-L170.	1.8	4
23	Berry phase modification of the current drive in a restricted class of large annular Josephson junctions at low temperature. <i>Physical Review B</i> , 2001, 63, .	3.2	4
24	Dynamic interplay of Berry's phase and spectral flow in the current-voltage characteristics of a restricted class of large SNS annular Josephson junctions. <i>Physical Review B</i> , 2001, 63, .	3.2	4
25	Controlling Qubit Transitions through Quantum Interference during Nonadiabatic Rapid Passage. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , 2005, 99, 257.	0.6	4
26	Noise-induced sampling of alternative Hamiltonian paths in quantum adiabatic search. <i>Complexity</i> , 2009, 14, 21-27.	1.6	4
27	High-fidelity universal quantum gates. <i>Quantum Information and Computation</i> , 2010, 10, 936-946.	0.3	4
28	Controlling qubit transitions during non-adiabatic rapid passage through quantum interference. <i>Journal of Modern Optics</i> , 2004, 51, 2415-2427.	1.3	3
29	On the observability of mesoscopic or macroscopic quantum coherence of domain walls in magnetic insulators. <i>Journal of Physics Condensed Matter</i> , 1994, 6, 7565-7579.	1.8	2
30	On domain wall quantum coherence in magnetic insulators. <i>Physica B: Condensed Matter</i> , 1994, 194-196, 265-266.	2.7	2
31	Robust high-fidelity universal set of quantum gates through non-adiabatic rapid passage. <i>Journal of Modern Optics</i> , 2011, 58, 1922-1927.	1.3	2
32	Generalized Ramsey numbers through adiabatic quantum optimization. <i>Quantum Information Processing</i> , 2016, 15, 3519-3542.	2.2	2
33	Improving quantum gate performance through neighboring optimal control. <i>Physical Review A</i> , 2014, 90, .	2.5	1
34	High-fidelity universal quantum gates through quantum interference. , 2010, , .		0
35	High-fidelity quantum state preparation using neighboring optimal control. <i>Quantum Information Processing</i> , 2017, 16, 1.	2.2	0