Albert Roura

List of Publications by Year
in descending order

28 papers	1,378 citations	430874 18 h-index	501196 28 g-index
29 all docs	29 docs citations	29 times ranked	1053 citing authors

#	Article	IF	Citations
1	Taking atom interferometric quantum sensors from the laboratory to real-world applications. Nature Reviews Physics, 2019, 1, 731-739.	26.6	195
2	AEDGE: Atomic Experiment for Dark Matter and Gravity Exploration in Space. EPJ Quantum Technology, 2020, 7, .	6.3	190
3	Exact analytical solutions to the master equation of quantum Brownian motion for a general environment. Annals of Physics, 2011, 326, 1207-1258.	2.8	86
4	The Bose-Einstein Condensate and Cold Atom Laboratory. EPJ Quantum Technology, 2021, 8, .	6.3	85
5	Stochastic description for open quantum systems. Physica A: Statistical Mechanics and Its Applications, 2003, 319, 188-212.	2.6	83
6	Circumventing Heisenbergâ€™s Uncertainty Principle in Atom Interferometry Tests of the Equivalence Principle. Physical Review Letters, 2017, 118, 160401.	7.8	83
7	Nonequilibrium dynamics of optical-lattice-loaded Bose-Einstein-condensate atoms: Beyond the Hartree-Fock-Bogoliubov approximation. Physical Review A, 2004, 69, .	2.5	80
8	Macroscopic Quantum Resonators (MAQRO): 2015 update. EPJ Quantum Technology, 2016, 3, .	6.3	77
9	SAGE: A proposal for a space atomic gravity explorer. European Physical Journal D, 2019, 73, 1.	1.3	75
10	ELGARâ€”a European Laboratory for Gravitation and Atom-interferometric Research. Classical and Quantum Gravity, 2020, 37, 225017.	4.0	63
11	Overcoming loss of contrast in atom interferometry due to gravity gradients. New Journal of Physics, 2014, 16, 123012.	2.9	45
12	Gravitational Redshift in Quantum-Clock Interferometry. Physical Review X, 2020, 10, .	8.9	45
13	Representation-free description of light-pulse atom interferometry including non-inertial effects. Physics Reports, 2015, 605, 1-50.	25.6	43
14	Gravitational wave detectors based on matter wave interferometers (MIGO) are no better than laser interferometers (LIGO). Physical Review D, 2006, 73, .	4.7	40
15	Stability of Semiclassical Gravity Solutions with Respect to Quantum Metric Fluctuations. International Journal of Theoretical Physics, 2004, 43, 749-766.	1.2	29
16	Fluctuations of an Evaporating Black Hole from Back Reaction of Its Hawking Radiation: Questioning aÂPremise in Earlier Work. International Journal of Theoretical Physics, 2007, 46, 2204-2217.	1.2	28
17	Interference of clocks: A quantum twin paradox. Science Advances, 2019, 5, eaax8966.	10.3	24
18	Regimes of atomic diffraction: Raman versus Bragg diffraction in retroreflective geometries. Physical Review A, 2020, 101, .	2.5	23

#	Article	IF	Citations
19	Exploring the foundations of the physical universe with space tests of the equivalence principle. Experimental Astronomy, 2021, 51, 1695-1736.	3.7	20
20	Atom-interferometric test of the universality of gravitational redshift and free fall. Physical Review Research, 2020, 2, .	3.6	13
21	Measuring gravitational time dilation with delocalized quantum superpositions. Physical Review D, 2021, 104, .	4.7	11
22	Atomic Raman scattering: Third-order diffraction in a double geometry. Physical Review A, 2020, 102, .	2.5	11
23	Activation-Like Processes at Zero Temperature. International Journal of Theoretical Physics, 2003, 42, 1257-1280.	1.2	7
24	Proper time in atom interferometers: Diffractive versus specular mirrors. Physical Review A, 2019, 99, .	2.5	7
25	Quantum probe of space-time curvature. Science, 2022, 375, 142-143.	12.6	6
26	Roura Replies. Physical Review Letters, 2018, 121, 128904.	7.8	3
27	Bragg-diffraction-induced imperfections of the signal in retroreflective atom interferometers. Physical Review A, 2022, 105, .	2.5	3
28	Specular mirror interferometer. Progress in Optics, 2020, 65, 173-229.	0.6	2