

# Oriol Romero-Isart

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

57  
papers

2,137  
citations

23  
h-index

46  
g-index

59  
ext. papers

2,672  
ext. citations

5.3  
avg, IF

5.28  
L-index

#	Paper	IF	Citations
57	Large quantum superpositions and interference of massive nanometer-sized objects. <i>Physical Review Letters</i> , <b>2011</b> , 107, 020405	7.4	305
56	Toward quantum superposition of living organisms. <i>New Journal of Physics</i> , <b>2010</b> , 12, 033015	2.9	287
55	Optically levitating dielectrics in the quantum regime: Theory and protocols. <i>Physical Review A</i> , <b>2011</b> , 83,	2.6	155
54	Quantum superposition of massive objects and collapse models. <i>Physical Review A</i> , <b>2011</b> , 84,	2.6	141
53	Quantum non-demolition detection of strongly correlated systems. <i>Nature Physics</i> , <b>2008</b> , 4, 50-54	16.2	131
52	Prediction of protein-protein interactions using distant conservation of sequence patterns and structure relationships. <i>Bioinformatics</i> , <b>2005</b> , 21, 3360-8	7.2	79
51	Quantum magnetomechanics with levitating superconducting microspheres. <i>Physical Review Letters</i> , <b>2012</b> , 109, 147205	7.4	69
50	Superconducting vortex lattices for ultracold atoms. <i>Physical Review Letters</i> , <b>2013</b> , 111, 145304	7.4	63
49	Cavity-Based 3D Cooling of a Levitated Nanoparticle via Coherent Scattering. <i>Physical Review Letters</i> , <b>2019</b> , 122, 123601	7.4	61
48	Macroscopic quantum resonators (MAQRO). <i>Experimental Astronomy</i> , <b>2012</b> , 34, 123-164	1.3	60
47	On-chip quantum interference of a superconducting microsphere. <i>Quantum Science and Technology</i> , <b>2018</b> , 3, 025001	5.5	49
46	Long-distance transfer and routing of static magnetic fields. <i>Physical Review Letters</i> , <b>2014</b> , 112, 253901	7.4	47
45	Efficient quantum state transfer in spin chains via adiabatic passage. <i>New Journal of Physics</i> , <b>2007</b> , 9, 155-155	2.9	44
44	Quantum ratchets for quantum communication with optical superlattices. <i>Physical Review A</i> , <b>2007</b> , 76,	2.6	41
43	Quantum polarization spectroscopy of correlations in attractive fermionic gases. <i>New Journal of Physics</i> , <b>2009</b> , 11, 055041	2.9	39
42	Quantum state transfer in spin-1 chains. <i>Physical Review A</i> , <b>2007</b> , 75,	2.6	38
41	Master-equation approach to optomechanics with arbitrary dielectrics. <i>Physical Review A</i> , <b>2012</b> , 86,	2.6	36

40	Ultrasensitive Inertial and Force Sensors with Diamagnetically Levitated Magnets. <i>Physical Review Applied</i> , <b>2017</b> , 8,	4.3	34
39	Separable measurement estimation of density matrices and its fidelity gap with collective protocols. <i>Physical Review Letters</i> , <b>2006</b> , 97, 130501	7.4	30
38	Quantum Spin Stabilized Magnetic Levitation. <i>Physical Review Letters</i> , <b>2017</b> , 119, 167202	7.4	29
37	Single-Spin Magnetomechanics with Levitated Micromagnets. <i>Physical Review Letters</i> , <b>2020</b> , 124, 163604	7.4	28
36	Theory for cavity cooling of levitated nanoparticles via coherent scattering: Master equation approach. <i>Physical Review A</i> , <b>2019</b> , 100,	2.6	28
35	Optomechanics assisted by a qubit: From dissipative state preparation to many-partite systems. <i>Physical Review A</i> , <b>2013</b> , 88,	2.6	24
34	Levitodynamics: Levitation and control of microscopic objects in vacuum. <i>Science</i> , <b>2021</b> , 374, eabg3027	33.3	22
33	Purity estimation with separable measurements. <i>Physical Review Letters</i> , <b>2005</b> , 95, 110504	7.4	21
32	Strong single-photon coupling in superconducting quantum magnetomechanics. <i>Physical Review Letters</i> , <b>2015</b> , 114, 143602	7.4	20
31	Roadmap on Spin-Wave Computing. <i>IEEE Transactions on Magnetics</i> , <b>2022</b> , 1-1	2	20
30	Coherent inflation for large quantum superpositions of levitated microspheres. <i>New Journal of Physics</i> , <b>2017</b> , 19, 123029	2.9	19
29	Magnetic rigid rotor in the quantum regime: Theoretical toolbox. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	19
28	Probing magnetic order in ultracold lattice gases. <i>Physical Review A</i> , <b>2011</b> , 83,	2.6	19
27	Preparation of decoherence-free cluster states with optical superlattices. <i>Physical Review A</i> , <b>2009</b> , 79,	2.6	19
26	Quantum Acoustomechanics with a Micromagnet. <i>Physical Review Letters</i> , <b>2020</b> , 124, 093602	7.4	15
25	Cooperative Effects in Closely Packed Quantum Emitters with Collective Dephasing. <i>Physical Review Letters</i> , <b>2018</b> , 120, 033602	7.4	15
24	Near-field levitated quantum optomechanics with nanodiamonds. <i>Physical Review A</i> , <b>2016</b> , 94,	2.6	13
23	Transport and entanglement generation in the Bose-Hubbard model. <i>Journal of Physics A: Mathematical and Theoretical</i> , <b>2007</b> , 40, 8019-8031	2	12

22	Theory of quantum acoustomagnonics and acoustomechanics with a micromagnet. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	10
21	Linear stability analysis of a levitated nanomagnet in a static magnetic field: Quantum spin stabilized magnetic levitation. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	10
20	Heating in Nanophotonic Traps for Cold Atoms. <i>Physical Review X</i> , <b>2019</b> , 9,	9.1	10
19	Quadratic quantum Hamiltonians: General canonical transformation to a normal form. <i>Physical Review A</i> , <b>2019</b> , 99,	2.6	9
18	Internal quantum dynamics of a nanoparticle in a thermal electromagnetic field: A minimal model. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	9
17	Hybrid architecture for engineering magnonic quantum networks. <i>Physical Review A</i> , <b>2019</b> , 100,	2.6	8
16	Quantum motional state tomography with nonquadratic potentials and neural networks. <i>Physical Review Research</i> , <b>2019</b> , 1,	3.9	8
15	Acoustic and optical properties of a fast-spinning dielectric nanoparticle. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	7
14	Quantum memory assisted probing of dynamical spin correlations. <i>Physical Review Letters</i> , <b>2012</b> , 108, 065302	7.4	7
13	Efficiency in Quantum Key Distribution Protocols with Entangled Gaussian States. <i>Open Systems and Information Dynamics</i> , <b>2007</b> , 14, 69-80	0.4	7
12	Large Quantum Delocalization of a Levitated Nanoparticle Using Optimal Control: Applications for Force Sensing and Entangling via Weak Forces. <i>Physical Review Letters</i> , <b>2021</b> , 127, 023601	7.4	7
11	Circumventing Magnetostatic Reciprocity: A Diode for Magnetic Fields. <i>Physical Review Letters</i> , <b>2018</b> , 121, 213903	7.4	5
10	Quantum size effects in the magnetic susceptibility of a metallic nanoparticle. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	2
9	Non-Markovian Effects of Two-Level Systems in a Niobium Coaxial Resonator with a Single-Photon Lifetime of 10 milliseconds. <i>Physical Review Applied</i> , <b>2021</b> , 16,	4.3	2
8	Ultrashort Pulses for Far-Field Nanoscopy. <i>Physical Review Letters</i> , <b>2016</b> , 117, 103602	7.4	1
7	Ultrafocused Electromagnetic Field Pulses with a Hollow Cylindrical Waveguide. <i>Physical Review Letters</i> , <b>2017</b> , 119, 043904	7.4	1
6	Remote Individual Addressing of Quantum Emitters with Chirped Pulses. <i>Physical Review Letters</i> , <b>2021</b> , 126, 103602	7.4	1
5	Effective quantum dynamics induced by a driven two-level-system bath. <i>Physical Review A</i> , <b>2021</b> , 103,	2.6	1

- 4 Probing Surface-Bound Atoms with Quantum Nanophotonics. *Physical Review Letters*, **2021**, 126, 163601. 7.4 ○
- 3 Radiation Reaction of a Jiggling Dipole in a Quantum Electromagnetic Field. *Physical Review Letters*, **2019**, 123, 243603. 7.4 ○
- 2 Mechanical Squeezing via Unstable Dynamics in a Microcavity.. *Physical Review Letters*, **2022**, 128, 143601. 7.4 ○
- 1 Eine Diode für Magnetfelder. *Physik in Unserer Zeit*, **2019**, 50, 114-115. 0.1