Giovanni Modugno

List of Publications by Year
in descending order

93 papers	7,927 citations	76326 40 h-index	58581 82 g-index
94 all docs	94 docs citations	94 times ranked	3999 citing authors

#	Article	IF	Citations
1	Anderson localization of a non-interacting Boseâ€“Einstein condensate. Nature, 2008, 453, 895-898.	27.8	1,393
2	Self-Bound Quantum Droplets of Atomic Mixtures in Free Space. Physical Review Letters, 2018, 120, 235301.	7.8	372
3	Two Atomic Species Superfluid. Physical Review Letters, 2002, 89, 190404.	7.8	359
4	Fermi-Bose Quantum DegenerateK40â^'R87bMixture with Attractive Interaction. Physical Review Letters, 2002, 89, 150403.	7.8	350
5	Bose-Einstein Condensation of Potassium Atoms by Sympathetic Cooling. Science, 2001, 294, 1320-1322.	12.6	331
6	Observation of an Efimov spectrum in an atomicÂsystem. Nature Physics, 2009, 5, 586-591.	16.7	329
7	Collapse of a Degenerate Fermi Gas. Science, 2002, 297, 2240-2243.	12.6	307
8	Observation of a Dipolar Quantum Gas with Metastable Supersolid Properties. Physical Review Letters, 2019, 122, 130405.	7.8	288
9	Delocalization of a disordered bosonic system by repulsive interactions. Nature Physics, 2010, 6, 354-358.	16.7	224
10	Anderson localization in Boseâ€“Einstein condensates. Reports on Progress in Physics, 2010, 73, 102401.	20.1	190
11	Atom Interferometry with Trapped Fermi Gases. Physical Review Letters, 2004, 92, 230402.	7.8	182
12	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">K</mml:mi><mml:mprescripts /><mml:none /><mml:mn>39</mml:mn></mml:mmultiscripts></mml:math>Bose-Einstein Condensate with Tunable Interactions. Physical Review Letters, 2007, 99, 010403.	7.8	177
13	Atom Interferometry with a Weakly Interacting Bose-Einstein Condensate. Physical Review Letters, 2008, 100, 080405.	7.8	160
14	Measurement of the mobility edge for 3D Anderson localization. Nature Physics, 2015, 11, 554-559.	16.7	159
15	Collisions of Self-Bound Quantum Droplets. Physical Review Letters, 2019, 122, 090401.	7.8	146
16	Supersolid symmetry breaking from compressional oscillations in a dipolar quantum gas. Nature, 2019, 574, 382-385.	27.8	140
17	Production of a Fermi gas of atoms in an optical lattice. Physical Review A, 2003, 68, .	2.5	139
18	Feshbach spectroscopy of aKâ^'Rbatomic mixture. Physical Review A, 2006, 73, .	2.5	139

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19	Feshbach resonances in ultracold³⁹K. New Journal of Physics, 2007, 9, 223-223.	2.9	137
20	Observation of Subdiffusion in a Disordered Interacting System. Physical Review Letters, 2011, 106, 230403.	7.8	131
21	Collisional Properties of Ultracold K-Rb Mixtures. Physical Review Letters, 2002, 89, 053202.	7.8	125
22	Collisionally Induced Transport in Periodic Potentials. Physical Review Letters, 2004, 92, 160601.	7.8	121
23	Magnetic Control of the Interaction in Ultracold K-Rb Mixtures. Physical Review Letters, 2003, 90, 163202.	7.8	114
24	Test of the Universality of the Three-Body Efimov Parameter at Narrow Feshbach Resonances. Physical Review Letters, 2013, 111, 053202.	7.8	112
25	Control of the interaction in a Fermi-Bose mixture. Physical Review A, 2006, 74, .	2.5	101
26	Observation of a Disordered Bosonic Insulator from Weak to Strong Interactions. Physical Review Letters, 2014, 113, 095301.	7.8	93
27	Quantum phase transitions with parity-symmetry breaking and hysteresis. Nature Physics, 2016, 12, 826-829.	16.7	92
28	Magnetic Dipolar Interaction in a Bose-Einstein Condensate Atomic Interferometer. Physical Review Letters, 2008, 101, 190405.	7.8	91
29	Sensitive Measurement of Forces at the Micron Scale Using Bloch Oscillations of Ultracold Atoms. Physical Review Letters, 2005, 95, 093202.	7.8	88
30	Insulating Behavior of a Trapped Ideal Fermi Gas. Physical Review Letters, 2004, 93, 120401.	7.8	80
31	Mean-field analysis of the stability of a K-Rb Fermi-Bose mixture. Physical Review A, 2003, 68, .	2.5	71
32	Line-shape of dark line and maser emission profile in CPT. European Physical Journal D, 2000, 12, 53-59.	1.3	68
33	Crossing Over from Attractive to Repulsive Interactions in a Tunneling Bosonic Josephson Junction. Physical Review Letters, 2017, 118, 230403.	7.8	64
34	Near-threshold model for ultracold KRb dimers from interisotope Feshbach spectroscopy. Physical Review A, 2008, 77, .	2.5	56
35	Evidence of superfluidity in a dipolar supersolid from nonclassical rotational inertia. Science, 2021, 371, 1162-1165.	12.6	54
36	A Compact Atom Interferometer for Future Space Missions. Microgravity Science and Technology, 2010, 22, 551-561.	1.4	48

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37	Transport of a Bose Gas in 1D Disordered Lattices at the Fluid-Insulator Transition. Physical Review Letters, 2013, 111, 115301.	7.8	47
38	Mott transition for strongly interacting one-dimensional bosons in a shallow periodic potential. Physical Review A, 2016, 93, .	2.5	47
39	Sub-Doppler laser cooling of potassium atoms. Physical Review A, 2011, 84, .	2.5	44
40	Dipolar oscillations in a quantum degenerate FermiÂBose atomic mixture. Journal of Optics B: Quantum and Semiclassical Optics, 2003, 5, S3-S8.	1.4	41
41	Detection of H2S at the ppm level using a telecommunication diode laser. Optics Communications, 1998, 145, 76-80.	2.1	40
42	Search for Small Violations of the Symmetrization Postulate for Spin-0 Particles. Physical Review Letters, 1998, 81, 4790-4793.	7.8	40
43	Radio Frequency Selective Addressing of Localized Atoms in a Periodic Potential. Physical Review Letters, 2004, 93, 120407.	7.8	36
44	Quantum diffusion with disorder, noise and interaction. New Journal of Physics, 2013, 15, 045007.	2.9	35
45	A black-hole laser. Nature Physics, 2014, 10, 793-794.	16.7	34
46	Anharmonic parametric excitation in optical lattices. Physical Review A, 2001, 64, .	2.5	33
47	Correlation function of weakly interacting bosons in a disordered lattice. New Journal of Physics, 2011, 13, 023020.	2.9	28
48	Dysprosium dipolar Bose-Einstein condensate with broad Feshbach resonances. Physical Review A, 2018, 97, .	2.5	28
49	Direct evaporative cooling of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>39</mml:mn></mml:msup></mml:math>K atoms to Bose-Einstein condensation. Physical Review A, 2012, 86, .	2.5	25
50	Water vapour and carbon dioxide interference in the high sensitivity detection of NH3 with semiconductor diode lasers at 1.5 Î¼m. Infrared Physics and Technology, 1999, 40, 93-99.	2.9	24
51	High-resolution measurements of line intensity, broadening and shift of CO $mathsf{_2}$ around $mathsf{2 mu}$ m. European Physical Journal D, 1999, 6, 327-332.	1.3	24
52	Cooling atoms in an optical trap by selective parametric excitation. Physical Review A, 2002, 65, .	2.5	24
53	Power amplifier for 1083 nm using ytterbium doped fibre. Optics Communications, 1997, 136, 243-246.	2.1	23
54	Dimensional Crossover in the Superfluid-Supersolid Quantum Phase Transition. Physical Review X, 2022, 12, .	8.9	21

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55	Fundamental noise sources in a high-sensitivity two-tone frequency modulation spectrometer and detection of CO 2 at 1.6 Î¼m and 2 Î¼m. Applied Physics B: Lasers and Optics, 1998, 67, 289-296.	2.2	20
56	Sub-Doppler laser cooling of fermionic40Katoms. Physical Review A, 1999, 60, R3373-R3376.	2.5	20
57	The Space Atom Interferometer project: status and prospects. Journal of Physics: Conference Series, 2011, 327, 012050.	0.4	20
58	Expansion of a Fermi Gas Interacting with a Bose-Einstein Condensate. Physical Review Letters, 2004, 92, 140405.	7.8	19
59	Velocity-dependent quantum phase slips in 1D atomic superfluids. Scientific Reports, 2016, 6, 25965.	3.3	17
60	Tunable frequency-controlled laser source in the near ultraviolet based on doubling of a semiconductor diode laser. Applied Physics B: Lasers and Optics, 1996, 62, 333-338.	2.2	16
61	Scissors mode of an expanding Bose-Einstein condensate. Physical Review A, 2003, 67, .	2.5	16
62	The Pure Rotation Spectrum of HOCl in the Submillimeter-Wave Region. Journal of Molecular Spectroscopy, 1995, 172, 559-562.	1.2	14
63	Precise measurement of molecular dipole moments with a tunable far-infrared Stark spectrometer: application to HOCl. Journal of the Optical Society of America B: Optical Physics, 1996, 13, 1645.	2.1	14
64	Finite-temperature effects on interacting bosonic one-dimensional systems in disordered lattices. Physical Review A, 2016, 93, .	2.5	14
65	Optical trapping of cold fermionic potassium for collisional studies. Physical Review A, 2001, 63, .	2.5	13
66	Pressure broadening in the second overtone of NO, measured with a near infrared DFB diode laser. Optics Communications, 1999, 159, 80-83.	2.1	10
67	High-resolution investigation of the weak Î½1+3Î½21-Î½21+Î½3 band of CO2 around 2ÂΙ¼m. Applied Physics B: Lasers and Optics, 2000, 70, 879-881.	2.2	10
68	Testing the symmetrization postulate on molecules with three identical nuclei. Physical Review A, 2000, 62, .	2.5	10
69	Spatial Bloch Oscillations of a Quantum Gas in a â€œBeat-Noteâ€•Superlattice. Physical Review Letters, 2021, 127, 020601.	7.8	9
70	Atom interferometry in a vertical optical lattice. Fortschritte Der Physik, 2004, 52, 1173-1179.	4.4	8
71	A new setup for experiments with ultracold dysprosium atoms. European Physical Journal: Special Topics, 2017, 226, 2775-2780.	2.6	8
72	Modeling the transport of interacting matter waves in a disordered system by a nonlinear diffusion equation. Physical Review E, 2013, 87, 042922.	2.1	7

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73	Quantum phase slips: from condensed matter to ultracold quantum gases. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160425.	3.4	7
74	Exploring quantum phase slips in 1D bosonic systems. European Physical Journal: Special Topics, 2017, 226, 2815-2827.	2.6	6
75	Universal Few-Body Binding. Science, 2009, 326, 1640-1641.	12.6	4
76	Quasi-2D Bose-Fermi mixtures in an optical lattice. European Physical Journal Special Topics, 2004, 116, 253-258.	0.2	3
77	Comparative investigation of $scriptstyle mathsf {}$. European Physical Journal D, 2003, 23, 409-413.	1.3	2
78	Quantum degenerate potassium-rubidium mixtures. Fortschritte Der Physik, 2003, 51, 396-401.	4.4	2
79	Atomic Fermi gases in optical lattices. AIP Conference Proceedings, 2005, , .	0.4	2
80	Multimode trapped interferometer with noninteracting Bose-Einstein condensates. Physical Review Research, 2021, 3, .	3.6	2
81	Spectroscopic tests of the symmetrization postulate and of the statistics for nuclei in molecules. AIP Conference Proceedings, 2000, , .	0.4	1
82	Transport of an interacting Bose gas in 1D disordered lattices. , 2014, , .		1
83	Atom Interferometry with a Weakly Interacting Bose Einstein Condensate. , 2008, , .		1
84	QUANTUM DEGENERATE BOSONS AND FERMIONS IN A 1D OPTICAL LATTICE. , 2004, , .		0
85	Interactions in Ultracold Atomic Mixtures. , 2005, , 280-290.		0
86	Bose-Einstein condensates and quantum degenerate Ferni gases in optical lattices. , 0, , .		0
87	Experiments with a ³⁹K Bose-Einstein condensate with tunable interactions. , 2007, , .		0
88	An ideal Boseâ€“Einstein condensate: From Anderson localization to precision measurements. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 425-431.	2.7	0
89	Giant Efimov States Now Observed. Physics Magazine, 2014, 7, .	0.1	0
90	The life of an analogue black hole. Nature Physics, 2021, 17, 300-301.	16.7	0

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91	Optical and Magnetic Trapping of Fermionic Potassium. , 2002, , 91-108.		0
92	Fermi-Bose and Bose-Bose K-Rb Quantum Degenerate Mixtures. , 2003, , .		0
93	Tuning the interactions in an atomic Fermi-Bose mixture. , 2006, , .		0