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	Dimensional Crossover in the Superfluid-Supersolid Quantum Phase Transition. Physical Review X, 2022, 12, .	8.9	21
2	The life of an analogue black hole. Nature Physics, 2021, 17, 300-301.	16.7	0
3	Evidence of superfluidity in a dipolar supersolid from nonclassical rotational inertia. Science, 2021, 371, 1162-1165.	12.6	54
4	Spatial Bloch Oscillations of a Quantum Gas in a â€œBeat-Noteâ€•Superlattice. Physical Review Letters, 2021, 127, 020601.	7.8	9
5	Multimode trapped interferometer with noninteracting Bose-Einstein condensates. Physical Review Research, 2021, 3, .	3.6	2
6	Supersolid symmetry breaking from compressional oscillations in a dipolar quantum gas. Nature, 2019, 574, 382-385.	27.8	140
7	Collisions of Self-Bound Quantum Droplets. Physical Review Letters, 2019, 122, 090401.	7.8	146
8	Observation of a Dipolar Quantum Gas with Metastable Supersolid Properties. Physical Review Letters, 2019, 122, 130405.	7.8	288
9	Dysprosium dipolar Bose-Einstein condensate with broad Feshbach resonances. Physical Review A, 2018, 97, .	2.5	28
10	Self-Bound Quantum Droplets of Atomic Mixtures in Free Space. Physical Review Letters, 2018, 120, 235301.	7.8	372
11	A new setup for experiments with ultracold dysprosium atoms. European Physical Journal: Special Topics, 2017, 226, 2775-2780.	2.6	8
12	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
13	Crossing Over from Attractive to Repulsive Interactions in a Tunneling Bosonic Josephson Junction. Physical Review Letters, 2017, 118, 230403.	7.8	64
14	Exploring quantum phase slips in 1D bosonic systems. European Physical Journal: Special Topics, 2017, 226, 2815-2827.	2.6	6
15	Velocity-dependent quantum phase slips in 1D atomic superfluids. Scientific Reports, 2016, 6, 25965.	3.3	17
16	Quantum phase transitions with parity-symmetry breaking and hysteresis. Nature Physics, 2016, 12, 826-829.	16.7	92
17	Finite-temperature effects on interacting bosonic one-dimensional systems in disordered lattices. Physical Review A, 2016, 93, .	2.5	14
18	Mott transition for strongly interacting one-dimensional bosons in a shallow periodic potential. Physical Review A, 2016, 93, .	2.5	47

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19	Measurement of the mobility edge for 3D Anderson localization. Nature Physics, 2015, 11, 554-559.	16.7	159
20	Transport of an interacting Bose gas in 1D disordered lattices. , 2014, , .		1
21	A black-hole laser. Nature Physics, 2014, 10, 793-794.	16.7	34
22	Observation of a Disordered Bosonic Insulator from Weak to Strong Interactions. Physical Review Letters, 2014, 113, 095301.	7.8	93
23	Giant Efimov States Now Observed. Physics Magazine, 2014, 7, .	0.1	0
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	Quantum diffusion with disorder, noise and interaction. New Journal of Physics, 2013, 15, 045007.	2.9	35
26	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
27	Transport of a Bose Gas in 1D Disordered Lattices at the Fluid-Insulator Transition. Physical Review Letters, 2013, 111, 115301.	7.8	47
28	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
29	Sub-Doppler laser cooling of potassium atoms. Physical Review A, 2011, 84, .	2.5	44
30	Correlation function of weakly interacting bosons in a disordered lattice. New Journal of Physics, 2011, 13, 023020.	2.9	28
31	Observation of Subdiffusion in a Disordered Interacting System. Physical Review Letters, 2011, 106, 230403.	7.8	131
32	The Space Atom Interferometer project: status and prospects. Journal of Physics: Conference Series, 2011, 327, 012050.	0.4	20
33	A Compact Atom Interferometer for Future Space Missions. Microgravity Science and Technology, 2010, 22, 551-561.	1.4	48
34	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
35	Delocalization of a disordered bosonic system by repulsive interactions. Nature Physics, 2010, 6, 354-358.	16.7	224
36	Anderson localization in Boseâ€“Einstein condensates. Reports on Progress in Physics, 2010, 73, 102401.	20.1	190

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37	Observation of an Efimov spectrum in an atomicÂsystem. Nature Physics, 2009, 5, 586-591.	16.7	329
38	Universal Few-Body Binding. Science, 2009, 326, 1640-1641.	12.6	4
39	Anderson localization of a non-interacting Boseâ€“Einstein condensate. Nature, 2008, 453, 895-898.	27.8	1,393
40	Near-threshold model for ultracold KRb dimers from interisotope Feshbach spectroscopy. Physical Review A, 2008, 77, .	2.5	56
41	Atom Interferometry with a Weakly Interacting Bose-Einstein Condensate. Physical Review Letters, 2008, 100, 080405.	7.8	160
42	Magnetic Dipolar Interaction in a Bose-Einstein Condensate Atomic Interferometer. Physical Review Letters, 2008, 101, 190405.	7.8	91
43	Atom Interferometry with a Weakly Interacting Bose Einstein Condensate. , 2008, , .		1
44	Experiments with a ³⁹K Bose-Einstein condensate with tunable interactions. , 2007, , .		0
45	Feshbach resonances in ultracold³⁹K. New Journal of Physics, 2007, 9, 223-223.	2.9	137
46	<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
47	Feshbach spectroscopy of aKâ^'Rbatomic mixture. Physical Review A, 2006, 73, .	2.5	139
48	Control of the interaction in a Fermi-Bose mixture. Physical Review A, 2006, 74, .	2.5	101
49	Tuning the interactions in an atomic Fermi-Bose mixture. , 2006, , .		0
50	Interactions in Ultracold Atomic Mixtures. , 2005, , 280-290.		0
51	Atomic Fermi gases in optical lattices. AIP Conference Proceedings, 2005, , .	0.4	2
52	Sensitive Measurement of Forces at the Micron Scale Using Bloch Oscillations of Ultracold Atoms. Physical Review Letters, 2005, 95, 093202.	7.8	88
53	Radio Frequency Selective Addressing of Localized Atoms in a Periodic Potential. Physical Review Letters, 2004, 93, 120407.	7.8	36
54	Atom Interferometry with Trapped Fermi Gases. Physical Review Letters, 2004, 92, 230402.	7.8	182

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55	Expansion of a Fermi Gas Interacting with a Bose-Einstein Condensate. Physical Review Letters, 2004, 92, 140405.	7.8	19
56	Collisionally Induced Transport in Periodic Potentials. Physical Review Letters, 2004, 92, 160601.	7.8	121
57	Insulating Behavior of a Trapped Ideal Fermi Gas. Physical Review Letters, 2004, 93, 120401.	7.8	80
58	Atom interferometry in a vertical optical lattice. Fortschritte Der Physik, 2004, 52, 1173-1179.	4.4	8
59	QUANTUM DEGENERATE BOSONS AND FERMIONS IN A 1D OPTICAL LATTICE. , 2004, , .		0
60	Quasi-2D Bose-Fermi mixtures in an optical lattice. European Physical Journal Special Topics, 2004, 116, 253-258.	0.2	3
61	Comparative investigation of $scriptstyle mathsf {}$. European Physical Journal D, 2003, 23, 409-413.	1.3	2
62	Quantum degenerate potassium-rubidium mixtures. Fortschritte Der Physik, 2003, 51, 396-401.	4.4	2
63	Magnetic Control of the Interaction in Ultracold K-Rb Mixtures. Physical Review Letters, 2003, 90, 163202.	7.8	114
64	Mean-field analysis of the stability of a K-Rb Fermi-Bose mixture. Physical Review A, 2003, 68, .	2.5	71
65	Production of a Fermi gas of atoms in an optical lattice. Physical Review A, 2003, 68, .	2.5	139
66	Scissors mode of an expanding Bose-Einstein condensate. Physical Review A, 2003, 67, .	2.5	16
67	Dipolar oscillations in a quantum degenerate FermiÂBose atomic mixture. Journal of Optics B: Quantum and Semiclassical Optics, 2003, 5, S3-S8.	1.4	41
68	Fermi-Bose and Bose-Bose K-Rb Quantum Degenerate Mixtures. , 2003, , .		0
69	Collisional Properties of Ultracold K-Rb Mixtures. Physical Review Letters, 2002, 89, 053202.	7.8	125
70	Cooling atoms in an optical trap by selective parametric excitation. Physical Review A, 2002, 65, .	2.5	24
71	Two Atomic Species Superfluid. Physical Review Letters, 2002, 89, 190404.	7.8	359
72	Collapse of a Degenerate Fermi Gas. Science, 2002, 297, 2240-2243.	12.6	307

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73	Fermi-Bose Quantum DegenerateK40â^'R87bMixture with Attractive Interaction. Physical Review Letters, 2002, 89, 150403.	7.8	350
74	Optical and Magnetic Trapping of Fermionic Potassium. , 2002, , 91-108.		0
75	Anharmonic parametric excitation in optical lattices. Physical Review A, 2001, 64, .	2.5	33
76	Bose-Einstein Condensation of Potassium Atoms by Sympathetic Cooling. Science, 2001, 294, 1320-1322.	12.6	331
77	Optical trapping of cold fermionic potassium for collisional studies. Physical Review A, 2001, 63, .	2.5	13
78	High-resolution investigation of the weak Î½1+3Î½21-Î½21+Î½3 band of CO2 around 2ÂÎ¼m. Applied Physics B: Lasers and Optics, 2000, 70, 879-881.	2.2	10
79	Line-shape of dark line and maser emission profile in CPT. European Physical Journal D, 2000, 12, 53-59.	1.3	68
80	Spectroscopic tests of the symmetrization postulate and of the statistics for nuclei in molecules. AIP Conference Proceedings, 2000, , .	0.4	1
81	Testing the symmetrization postulate on molecules with three identical nuclei. Physical Review A, 2000, 62, .	2.5	10
82	Sub-Doppler laser cooling of fermionic40Katoms. Physical Review A, 1999, 60, R3373-R3376.	2.5	20
83	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
84	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
85	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
86	Detection of H2S at the ppm level using a telecommunication diode laser. Optics Communications, 1998, 145, 76-80.	2.1	40
87	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
88	Search for Small Violations of the Symmetrization Postulate for Spin-0 Particles. Physical Review Letters, 1998, 81, 4790-4793.	7.8	40
89	Power amplifier for 1083 nm using ytterbium doped fibre. Optics Communications, 1997, 136, 243-246.	2.1	23
90	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

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91	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
92	The Pure Rotation Spectrum of HOCl in the Submillimeter-Wave Region. Journal of Molecular Spectroscopy, 1995, 172, 559-562.	1.2	14
93	Bose-Einstein condensates and quantum degenerate Ferni gases in optical lattices. , 0, , .		0