Daisuke Akamatsu

List of Publications by Year
in descending order

61 papers	1,597 citations	331670 21 h-index	289244 40 g-index
62 all docs	62 docs citations	62 times ranked	1231 citing authors

#	Article	IF	Citations
1	Laser frequency measurement in the short-wavelength region using an intermediate laser and a frequency noise cancellation method. Optics Letters, 2022, 47, 30.	3.3	1
2	Generation of 116ÂmW output power at 461 nm in a periodically poled lithium niobate waveguide. Japanese Journal of Applied Physics, 2022, 61, 020701.	1.5	2
3	Improved frequency ratio measurement with ⁸⁷Sr and ¹⁷¹Yb optical lattice clocks at NMIJ. Metrologia, 2021, 58, 015008.	1.2	8
4	Low-energy scattering of ultracold atoms by a dielectric nanosphere. Physical Review Research, 2021, 3, .	3.6	2
5	Development of an operational Yb optical lattice clock towards contribution to the International Atomic Time. , 2020, , .		0
6	Entanglement on an optical atomic-clock transition. Nature, 2020, 588, 414-418.	27.8	118
7	Demonstration of the nearly continuous operation of an¹⁷¹Yb optical lattice clock for half a year. Metrologia, 2020, 57, 065021.	1.2	24
8	Sr optical lattice clock assisted by optical frequency combs for contribution to International Atomic Time. , 2020, , .		0
9	A relocking scheme for optical phase locking using a digital circuit with an electrical delay line. Review of Scientific Instruments, 2019, 90, 103002.	1.3	9
10	Geometrically asymmetric optical cavity for strong atom-photon coupling. Physical Review A, 2019, 99, .	2.5	17
11	Near-Unitary Spin Squeezing in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Yb</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>171</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>. Physical Review Letters, 2019, 122, 223203.	7.8	68
12	Status report on an 171Yb optical lattice clock at NMIJ. , 2019, , .		0
13	Development of 8-branch Er:fiber frequency comb for Sr and Yb optical lattice clocks. Optics Express, 2019, 27, 6404.	3.4	14
14	Dual-Mode Operation of an Optical Lattice Clock Using Strontium and Ytterbium Atoms. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 1069-1075.	3.0	13
15	Uncertainty Evaluation of an ¹⁷¹Yb Optical Lattice Clock at NMIJ. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 2449-2458.	3.0	17
16	A frequency-stabilized light source at 399 nm using an Yb hollow-cathode lamp. Japanese Journal of Applied Physics, 2018, 57, 062501.	1.5	8
17	Laser-Controlled Cold Ytterbium Atom Source for Transportable Optical Clocks. Journal of the Physical Society of Japan, 2017, 86, 125001.	1.6	10
18	Optical trap of a nanoparticle in ultra-high vacuum towards a mixture of a nanoparticle and a laser-cooled gas. , 2017, , .		0

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19	Development of an 8-branch optical frequency comb for laser frequency stabilization. , 2017, , .		0
20	Absolute frequency measurements and hyperfine structures of the molecular iodine transitions at 578â€‰â€‰nm. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 725.	2.1	20
21	Second harmonic generation at 399 nm resonant on the ^1S_0â^'^1P1 transition of ytterbium using a periodically poled LiNbO_3 waveguide. Optics Express, 2016, 24, 12142.	3.4	21
22	Sub-Doppler laser spectroscopy of molecular iodine at 578 nm. , 2016, , .		0
23	Improved Frequency Measurement of the ¹S₀â€“³P₀ Clock Transition in ⁸⁷Sr Using a Cs Fountain Clock as a Transfer Oscillator. Journal of the Physical Society of Japan, 2015, 84, 115002.	1.6	26
24	Binary phase oscillation of two mutually coupled semiconductor lasers. Optics Express, 2015, 23, 6029.	3.4	14
25	Compact iodine-stabilized laser operating at 531 nm with stability at the 10^â^'12 level and using a coin-sized laser module. Optics Express, 2015, 23, 20749.	3.4	24
26	A compact iodine-stabilized diode laser at 531 nm. , 2015, , .		0
27	Spectroscopy and frequency measurement of the⁸⁷Sr clock transition by laser linewidth transfer using an optical frequency comb. Applied Physics Express, 2014, 7, 012401.	2.4	44
28	Frequency ratio measurement of ^171Yb and ^87Sr optical lattice clocks. Optics Express, 2014, 22, 7898.	3.4	40
29	Evaluation of an ultra-stable laser system based on a linewidth transfer method for optical clocks. , 2014, , .		0
30	Precision measurement with optical frequency combs and clocks. , 2013, , .		0
31	A Fabryâ€“PÃ©rot Etalon with an Ultralow Expansion Ceramic Spacer. Japanese Journal of Applied Physics, 2013, 52, 032402.	1.5	43
32	Spectroscopy of ^171Yb in an optical lattice based on laser linewidth transfer using a narrow linewidth frequency comb. Optics Express, 2013, 21, 7891.	3.4	46
33	Towards a new clock laser system using a ceramic cavity and laser linewidth transfer technique. , 2013, , .		0
34	Optical frequency measurement comparison using fiber laser combs between CMS and NMIJ. , 2013, , .		0
35	Improved Absolute Frequency Measurement of the 171Yb Optical Lattice Clock towards the Redefinition of the Second. , 2013, , .		0
36	Narrow linewidth laser system realized by linewidth transfer using a fiber-based frequency comb for the magneto-optical trapping of strontium. Optics Express, 2012, 20, 16010.	3.4	25

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37	Improved Absolute Frequency Measurement of the ^{171}Yb Optical Lattice Clock towards a Candidate for the Redefinition of the Second. Applied Physics Express, 2012, 5, 102401.	2.4	61
38	Optical frequency metrology with ytterbium and strontium optical lattice clocks. , 2011, , .		0
39	A compact light source at 461 nm using a periodically poled LiNbO_3 waveguide for strontium magneto-optical trapping. Optics Express, 2011, 19, 2046.	3.4	23
40	Current status of the¹⁷¹Yb optical lattice clock at NMIJ, AIST. Proceedings of SPIE, 2011, , .	0.8	0
41	Predicting and verifying transition strengths from weakly bound molecules. Physical Review A, 2011, 83, .	2.5	7
42	The CCL-K11 ongoing key comparison: final report for the year 2010. Metrologia, 2011, 48, 04001-04001.	1.2	1
43	Coherent Transfer of Photoassociated Molecules into the Rovibrational Ground State. Physical Review Letters, 2010, 105, 203001.	7.8	204
44	Toward the Yb/Sr frequency ratio measurement: Development of the Sr optical lattice clock at NMIJ, AIST. , 2010, , .		0
45	Quantum memory of a squeezed vacuum for arbitrary frequency sidebands. Physical Review A, 2010, 81, .	2.5	16
46	Fiber-based frequency combs with millihertz-level relative linewidths for optical lattice clocks. , 2010, , .		0
47	A new clock laser system for an Yb optical lattice clock using a fibre-based frequency comb stabilized to a narrow linewidth laser at 1064 nm. , 2010, , .		0
48	Rayleigh-Taylor instability and mushroom-pattern formation in a two-component Bose-Einstein condensate. Physical Review A, 2009, 80, .	2.5	96
49	Toward the production of quantum degenerate bosonic polar molecules,⁴¹K⁸⁷Rb. New Journal of Physics, 2009, 11, 055035.	2.9	48
50	Storage and Retrieval of a Squeezed Vacuum. Physical Review Letters, 2008, 100, 093601.	7.8	212
51	Constancy on quality factor of dual-T quartz crystal resonator circuit. , 2008, , .		3
52	Ultraslow Propagation of Squeezed Vacuum Pulses with Electromagnetically Induced Transparency. Physical Review Letters, 2007, 99, 153602.	7.8	48
53	Observation of electromagnetically induced transparency for a squeezed vacuum with the time domain method. Optics Express, 2007, 15, 11849.	3.4	21
54	Propagation of squeezed vacuum pulses inside a cold atomic ensemble with electromagnetically induced transparency. , 2007, , .		0

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55	Generation of a squeezed vacuum resonant on a rubidium D1 line with periodically poled KTiOPO4. Optics Letters, 2006, 31, 2344.	3.3	54
56	Frequency-filtered parametric fluorescence interacting with an atomic ensemble. Optics Communications, 2006, 259, 789-792.	2.1	3
57	Quantum information processing and quantum memory: experimental approach from atomic physics. , 2005, , .		0
58	Electromagnetically Induced Transparency with Squeezed Vacuum. Physical Review Letters, 2004, 92, 203602.	7.8	86
59	Coherent transfer of orbital angular momentum from an atomic system to a light field. Physical Review A, 2003, 67, .	2.5	38
60	Steep optical-wave group-velocity reduction and â€œstorageâ€•of light without on-resonance electromagnetically induced transparency. Physical Review A, 2002, 66, .	2.5	41
61	Achieving very-low-loss group velocity reduction without electromagnetically induced transparency. Applied Physics Letters, 2002, 81, 1168-1170.	3.3	14