

Optical Clocks and Relativity

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Citation Report

#	ARTICLE	IF	CITATIONS
2	Just a matter of time. Nature Physics, 2010, 6, 839-839.	6.5	0
3	Relativistic effects seen at everyday distances and speeds. Physics Today, 2010, 63, 16-17.	0.3	0
4	Optical lattice clock with neutral mercury. , 2011, , .		0
5	Quantum Coherence between Two Atoms beyond Q Physical Review Letters, 2011, 106, 160801.		
6	Precision tests of general relativity with matter waves. Journal of Modern Optics, 2011, 58, 2021-2027.	0.6	14
7	Atom interferometry and the gravitational redshift. Classical and Quantum Gravity, 2011, 28, 145018.	1.5	27
8	Ultraviolet laser spectroscopy of neutral mercury in a one-dimensional optical lattice. Physical Review A, 2011, 84, .	1.0	24
9	Field-test of a robust, portable, frequency-stable laser. Optics Express, 2011, 19, 10278.	1.7	58
10	Wavelength-scale imaging of trapped ions using a phase Fresnel lens. Optics Letters, 2011, 36, 1371.	1.7	39
11	Force-insensitive optical cavity. Optics Letters, 2011, 36, 3572.	1.7	102
12	Frequency stabilization to 6×10^{-16} via spectral-hole burning. Nature Photonics, 2011, 5, 688-693.	15.6	98
13	Rhythms essential to logical communication. Proceedings of SPIE, 2011, , .	0.8	0
14	Making optical atomic clocks more stable with 10^{-16} -level laser stabilization. Nature Photonics, 2011, 5, 158-161.	15.6	353
15	Frequency comparison of optical lattice clocks beyond the Dick limit. Nature Photonics, 2011, 5, 288-292.	15.6	121
16	Optical lattice clocks and quantum metrology. Nature Photonics, 2011, 5, 203-210.	15.6	201
17	The ^{87}Sr optical frequency standard at PTB. Metrologia, 2011, 48, 399-407.	0.6	102
18	Equivalence Principle and Gravitational Redshift. Physical Review Letters, 2011, 106, 151102.	2.9	108
19	Application of lasers to ultra-cold atoms and molecules. Comptes Rendus Physique, 2011, 12, 417-432.	0.3	9

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20	Millikelvin spatial thermometry of trapped ions. <i>New Journal of Physics</i> , 2011, 13, 113022.	1.2	13
21	Potential of electric quadrupole transitions in radium isotopes for single-ion optical frequency standards. <i>Physical Review A</i> , 2011, 83, .	1.0	17
22	Nondestructive Fluorescent State Detection of Single Neutral Atom Qubits. <i>Physical Review Letters</i> , 2011, 106, 133002.	2.9	49
23	Optical Lattice Trapping of Hg and Determination of the Magic Wavelength for the Ultraviolet	2.9	73
24	Resolved Atomic Interaction Sidebands in an Optical Clock Transition. <i>Physical Review Letters</i> , 2011, 106, 250801.	2.9	19
25	Frequency comparison of optical lattice clocks. , 2011, , .		0
26	The Constancy of the Constants of Nature: Updates. <i>Progress of Theoretical Physics</i> , 2011, 126, 993-1019.	2.0	68
27	Ultra-stable long distance optical frequency distribution using the Internet fiber network. <i>Optics Express</i> , 2012, 20, 23518.	1.7	132
28	Searching for new physics through atomic, molecular and optical precision measurements. <i>Physica Scripta</i> , 2012, 86, 068101.	1.2	18
29	Prototype of an ultra-stable optical cavity for space applications. <i>Optics Express</i> , 2012, 20, 25409.	1.7	87
30	An integrated ion trap and time-of-flight mass spectrometer for chemical and photo- reaction dynamics studies. <i>Review of Scientific Instruments</i> , 2012, 83, 043103.	0.6	38
31	Sr 445-THz Single-Ion Reference at the	2.9	134
32	Highly Charged Ions as a Basis of Optical Atomic Clockwork of Exceptional Accuracy. <i>Physical Review Letters</i> , 2012, 109, 180801.	2.9	102
33	Efficient ground-state cooling of an ion in a large room-temperature linear Paul trap with a sub-Hertz heating rate. <i>Physical Review A</i> , 2012, 86, .	1.0	23
34	Multipolar blackbody radiation shifts for single-ion clocks. <i>Physical Review A</i> , 2012, 85, .	1.0	36
35	Neutral Atom Frequency Reference in the Deep Ultraviolet with Fractional Uncertainty $\leq 5.7 \times 10^{-17}$	2.9	76
36	Carrier-phase-based two-way satellite time and frequency transfer. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2012, 59, 2625-2630.	1.7	38
37	A monolithic array of three-dimensional ion traps fabricated with conventional semiconductor technology. <i>Nature Nanotechnology</i> , 2012, 7, 572-576.	15.6	46

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38	A molecular conveyor belt by controlled delivery of single molecules into ultrashort laser pulses. Nature Physics, 2012, 8, 238-242.	6.5	38
39	Geophysical applicability of atomic clocks: direct continental geoid mapping. Geophysical Journal International, 2012, 191, 78-82.	1.0	54
40	Measuring the relative synchronization error of frequency counters with sub- μ s accuracy via a phase-stabilized fiber link. , 2012, , .		0
41	A method for comparing remote optical clocks over a free-space optical link. , 2012, , .		0
42	Characterization of an ultra-stable optical cavity developed in the industry for space applications. , 2012, , .		0
43	Frequency dissemination at the 19th decimal place. , 2012, , .		0
44	Relaxation Oscillations, Stability, and Cavity Feedback in a Superradiant Raman Laser. Physical Review Letters, 2012, 109, 253602.	2.9	27
45	Cesium active optical clock in four-level laser configuration. , 2012, , .		6
46	Two Atomic Clocks Ticking as One. Science, 2012, 336, 421-422.	6.0	10
47	A 920-Kilometer Optical Fiber Link for Frequency Metrology at the 19th Decimal Place. Science, 2012, 336, 441-444.	6.0	430
48	Efficient photo-ionization for barium ion trapping using a dipole-allowed resonant two-photon transition. Applied Physics B: Lasers and Optics, 2012, 108, 159-165.	1.1	17
49	Generalized Doppler shift and time dilation by considering velocity and acceleration. Journal of Modern Optics, 2012, 59, 1330-1335.	0.6	3
50	Superradiant Laser with Ultra-Narrow Linewidth Based on 40 Ca. Chinese Physics Letters, 2012, 29, 073202.	1.3	9
51	Freedom of choice in tracking an atomic resonance. , 2012, , .		2
52	Relativistic Metrology: From Earth to Astrophysics. , 2012, , .		4
53	Force-Free Gravitational Redshift: Proposed Gravitational Aharonov-Bohm Experiment. Physical Review Letters, 2012, 108, 230404.	2.9	52
54	Recent Progress of Single-Ion Optical Frequency Standards. Mapan - Journal of Metrology Society of India, 2012, 27, 3-7.	1.0	0
55	Advanced Ultrafast Technologies Based on Optical Frequency Combs. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 258-274.	1.9	78

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56	Advances in development of quartz crystal oscillators at liquid helium temperatures. Cryogenics, 2013, 57, 104-112.	0.9	17
57	Nobel Lecture: Superposition, entanglement, and raising Schrödinger's cat. Reviews of Modern Physics, 2013, 85, 1103-1114.	16.4	382
58	Äœberlagerungen, Verschränkungen und Schrödingers Katze (Nobel-Aufsatz). Angewandte Chemie, 2013, 125, 10367-10378.	1.6	1
59	Ultrafast High Power and Stabilized Semiconductor Diode Lasers Physics, Techniques, and Applications in Coherent Signal Processing. Advances in Atomic, Molecular and Optical Physics, 2013, , 303-381.	2.3	1
60	Superposition, Entanglement, and Raising Schrödinger's Cat (Nobel Lecture). Angewandte Chemie - International Edition, 2013, 52, 10179-10189.	7.2	11
61	Simultaneous remote transfer of accurate timing and optical frequency over a public fiber network. Applied Physics B: Lasers and Optics, 2013, 110, 3-6.	1.1	130
62	Realization of population inversion between 7S1/2 and 6P3/2 levels of cesium for four-level active optical clock. Science China: Physics, Mechanics and Astronomy, 2013, 56, 1107-1110.	2.0	20
63	A choice of wave functions in the making of time. , 2013, , .		0
64	Zero-Dead-Time Operation of Interleaved Atomic Clocks. Physical Review Letters, 2013, 111, 170802.	2.9	46
65	Experiment and theory: the case of the Doppler effect for photons. European Journal of Physics, 2013, 34, 1035-1047.	0.3	8
66	Dicke states in multiple quantum dots. Physical Review A, 2013, 88, .	1.0	6
67	An Atomic Clock with 10^{18} Instability. Science, 2013, 341, 1215-1218.	6.0	645
68	Optical-Frequency Transfer over a Single-Span 1840 km Fiber Link. Physical Review Letters, 2013, 111, 110801.	2.9	238
69	Atomic clocks for controlling light fields. Physics Today, 2013, 66, 27-32.	0.3	19
70	Cavity-stabilized laser with acceleration sensitivity below 10^{12} $\frac{\text{m}}{\text{s}^2}$. Physical Review A, 2013, 87, .	1.0	46
71	Timekeeping with electron spin states in diamond. Physical Review A, 2013, 87, .	1.0	52
72	Optical two-way time and frequency transfer over free space. Nature Photonics, 2013, 7, 434-438.	15.6	233
73	Development of narrow linewidth, micro-integrated extended cavity diode lasers for quantum optics experiments in space. Applied Physics B: Lasers and Optics, 2013, 111, 255-260.	1.1	26

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74	Optical frequency transfer over a single-span 1840-km fiber link. , 2013, , .		12
75	A Fabry-Pérot Etalon with an Ultralow Expansion Ceramic Spacer. Japanese Journal of Applied Physics, 2013, 52, 032402.	0.8	43
76	A Potassium Atom Four-Level Active Optical Clock Scheme. Chinese Physics Letters, 2013, 30, 040601.	1.3	14
77	Curvature effects on the interaction of nonlinear sphere coherent states with a three-level atom. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 2952.	0.9	3
78	Shifts of optical frequency references based on spectral-hole burning in $\text{Eu}^{3+}:\text{Y}_2\text{SiO}_5$. New Journal of Physics, 2013, 15, 033006.	1.2	27
79	Absolute and Relative Stability of an Optical Frequency Reference Based on Spectral Hole Burning in $\text{Eu}^{3+}:\text{Y}_2\text{SiO}_5$. New Journal of Physics, 2013, 15, 033006.	2.9	19
80	Simultaneous remote transfer of accurate timing and optical frequency over a public fiber network. , 2013, , .		6
81	Prospects of building optical atomic clocks using Er^{i} or Er^{iii} . Physical Review A, 2013, 88, .	1.0	24
82	Superposition, entanglement, and raising Schrödinger's cat. Annalen Der Physik, 2013, 525, 739-752.	0.9	11
83	Orthometric height determination based upon optical clocks and fiber frequency transfer technique. , 2013, , .		2
84	Prospects for a four-level super-radiant laser with ultra-narrow linewidth at 1469 nm based on cesium. , 2013, , .		0
85	Applications of the linear approximation. , 0, , 127-181.		0
86	Development and Applications of Time and Frequency Standards. Journal of the Japan Society for Precision Engineering, 2014, 80, 634-637.	0.0	0
87	Astronomical relativistic reference systems with multipolar expansion: the global one. Research in Astronomy and Astrophysics, 2014, 14, 1193-1200.	0.7	1
88	Relativistic transformations between global and local velocities of an orbiter under IAU Resolutions. Research in Astronomy and Astrophysics, 2014, 14, 1343-1350.	0.7	2
89	600-Hz linewidth short-linear-cavity fiber laser. Optics Letters, 2014, 39, 5818.	1.7	32
90	High-accuracy coherent optical frequency transfer over a doubled 642-km fiber link. Applied Physics B: Lasers and Optics, 2014, 117, 979-986.	1.1	128
91	Quantum Information and Coherence. , 2014, , .		4

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92	Magnetic-Dipole Transitions in Highly Charged Ions as a Basis of Ultraprecise Optical Clocks. Physical Review Letters, 2014, 113, 233003.	2.9	47
93	A strontium lattice clock with 3×10^{-17} inaccuracy and its frequency. New Journal of Physics, 2014, 16, 073023.	1.2	153
94	The Confrontation between General Relativity and Experiment. Living Reviews in Relativity, 2014, 17, 4.	8.2	2,055
95	Ultrastable laser with average fractional frequency drift rate below 5×10^{-19} /s. Optics Letters, 2014, 39, 5102.	1.7	56
96	High power, narrow linewidth, micro-integrated semiconductor laser modules designed for quantum sensors in space. , 2014, , .		0
97	Frequency transfer via a two-way optical phase comparison on a multiplexed fiber network. Optics Letters, 2014, 39, 1177.	1.7	69
98	Stable radio frequency dissemination by simple hybrid frequency modulation scheme. Optics Letters, 2014, 39, 5255.	1.7	25
99	Operation of an optically coherent frequency comb outside the metrology lab. Optics Express, 2014, 22, 6996.	1.7	169
100	Optical frequency transfer via a 660 km underground fiber link using a remote Brillouin amplifier. Optics Express, 2014, 22, 26537.	1.7	34
101	Frequency ratio measurement of ^{171}Yb and ^{87}Sr optical lattice clocks. Optics Express, 2014, 22, 7898.	1.7	40
102	One-femtosecond, long-term stable remote laser synchronization over a 35-km fiber link. Optics Express, 2014, 22, 14904.	1.7	40
103	A transportable strontium optical lattice clock. Applied Physics B: Lasers and Optics, 2014, 117, 1107-1116.	1.1	75
104	Twin paradox with macroscopic clocks in superconducting circuits. Physical Review A, 2014, 90, .	1.0	30
105	Optimal signal processing for continuous qubit readout. Physical Review A, 2014, 90, .	1.0	8
106	Spin Squeezing in a Rydberg Lattice Clock. Physical Review Letters, 2014, 112, 103601.	2.9	110
107	A high-accuracy mobile Al^{3+} optical clock. , 2014, , .		1
108	The development towards the optical lattice clock of strontium atom in National Time Service Center. Proceedings of SPIE, 2014, , .	0.8	0
109	A new epoch of quantum manipulation. National Science Review, 2014, 1, 91-100.	4.6	4

#	ARTICLE	IF	CITATIONS
110	Bayesian quantum frequency estimation in presence of collective dephasing. <i>New Journal of Physics</i> , 2014, 16, 113002.	1.2	59
111	An Active Ion Optical Clock. <i>Chinese Physics Letters</i> , 2014, 31, 093201.	1.3	5
112	Applied Non-Linear Dynamical Systems. <i>Springer Proceedings in Mathematics and Statistics</i> , 2014, , .	0.1	5
113	Probing many-body interactions in an optical lattice clock. <i>Annals of Physics</i> , 2014, 340, 311-351.	1.0	52
114	On the gravitational redshift. <i>New Astronomy</i> , 2014, 31, 8-13.	0.8	10
115	Evaluation of the systematic shifts and absolute frequency measurement of a single Ca ⁺ ion frequency standard. <i>Applied Physics B: Lasers and Optics</i> , 2014, 114, 189-201.	1.1	9
116	An optical lattice clock with accuracy and stability at the 10 ⁻¹⁸ level. <i>Nature</i> , 2014, 506, 71-75.	13.7	822
117	820 Hz linewidth short-linear-cavity single-frequency fiber laser at 1.5 μ m. <i>Laser Physics Letters</i> , 2014, 11, 035101.	0.6	15
118	Experimental study on optical frequency transfer via communication fibers. , 2014, , .		0
119	Optical frequency fiber dissemination at 10 ¹⁹ uncertainty level in Italy. , 2014, , .		1
120	Two-photon $E > 1$ $M < 1$ clock. <i>Physical Review A</i> , 2014, 90, .	1.0	15
121	Sea level: measuring the bounding surfaces of the ocean. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20130336.	1.6	16
122	Entanglement Generation Using Discrete Solitons in Coulomb Crystals. <i>Physical Review Letters</i> , 2014, 113, 053001.	2.9	27
123	Developing a narrow-line laser spectrometer based on a tunable continuous-wave dye laser. <i>Review of Scientific Instruments</i> , 2014, 85, 083113.	0.6	0
124	Distinguishing between evidence and its explanations in the steering of atomic clocks. <i>Annals of Physics</i> , 2014, 350, 29-49.	1.0	7
125	Eavesdropping time and frequency: phase noise cancellation along a time-varying path, such as an optical fiber. <i>Optics Letters</i> , 2014, 39, 2545.	1.7	55
126	Self-amplified lock of an ultra-narrow linewidth optical cavity. <i>Optics Letters</i> , 2014, 39, 5285.	1.7	9
127	Superposition, entanglement, and raising Schrödinger's cat. <i>International Journal of Modern Physics A</i> , 2014, 29, 1430027.	0.5	3

#	ARTICLE	IF	CITATIONS
147	Optical coherence transfer over 50-km spooled fiber with frequency instability of 2×10^{-17} at 1 s. Chinese Physics B, 2015, 24, 084209.	0.7	4
148	Frequency comparisons of Sr, Yb, and Hg based optical lattice clocks and their applications. , 2015, , .		0
149	Stranger Times: The Impact of Relativistic Time Concepts on the Time Value of Money. SSRN Electronic Journal, 0, , .	0.4	1
150	Time and frequency optical fiber links for space metrology. , 2015, , .		3
151	Method for Experimental Verification of the Effect of Gravitational Time Dilation by Using an Active Hydrogen Maser. Radiophysics and Quantum Electronics, 2015, 58, 290-295.	0.1	1
152	Geopotential difference determination using optic-atomic clocks via coaxial cable time transfer technique and a synthetic test. Geodesy and Geodynamics, 2015, 6, 344-350.	1.0	6
153	Ion Coulomb crystals. Physica B: Condensed Matter, 2015, 460, 105-113.	1.3	39
154	Study on the clock-transition spectrum of cold ^{171}Yb ytterbium atoms. Laser Physics Letters, 2015, 12, 025501.	0.6	8
155	Cryogenic optical lattice clocks. Nature Photonics, 2015, 9, 185-189.	15.6	496
156	Michelson-Morley analogue for electrons using trapped ions to test Lorentz symmetry. Nature, 2015, 517, 592-595.	13.7	86
157	Analysis of inhomogeneous-excitation frequency shifts of ytterbium optical lattice clocks. Laser Physics Letters, 2015, 12, 015501.	0.6	2
158	Evaluating the performance of the NPL femtosecond frequency combs: agreement at the 10^{-21} level. Metrologia, 2015, 52, 62-71.	0.6	33
159	Gravitational and relativistic deflection of X-ray superradiance. Nature Photonics, 2015, 9, 169-173.	15.6	16
160	Conditional Ramsey Spectroscopy with Synchronized Atoms. Physical Review Letters, 2015, 114, 103601.	2.9	35
161	Coulomb crystallization of highly charged ions. Science, 2015, 347, 1233-1236.	6.0	102
162	Compact slow-light single-frequency fiber laser at 1550 nm. Applied Physics Express, 2015, 8, 082703.	1.1	19
163	Optical frequency dissemination for metrology applications. Comptes Rendus Physique, 2015, 16, 524-530.	0.3	15
164	Towards a redefinition of the second based on optical atomic clocks. Comptes Rendus Physique, 2015, 16, 506-515.	0.3	124

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165	Acceleration effects on atomic clocks. <i>Classical and Quantum Gravity</i> , 2015, 32, 177001.	1.5	2
166	Optical atomic clocks. <i>Reviews of Modern Physics</i> , 2015, 87, 637-701.	16.4	1,421
167	Precision measurement of branching fractions of Ba ¹³⁸⁺ : Testing many-body theories below the 1% level. <i>Physical Review A</i> , 2015, 91, .	1.0	21
168	Special relativity from the dynamical viewpoint. <i>American Journal of Physics</i> , 2015, 83, 600-607.	0.3	4
169	Universal decoherence due to gravitational time dilation. <i>Nature Physics</i> , 2015, 11, 668-672.	6.5	187
170	Frequency ratios of Sr, Yb, and Hg based optical lattice clocks and their applications. <i>Comptes Rendus Physique</i> , 2015, 16, 489-498.	0.3	67
171	Compact, robust, and spectrally pure diode-laser system with a filtered output and a tunable copy for absolute referencing. <i>Applied Physics B: Lasers and Optics</i> , 2015, 119, 233-240.	1.1	4
172	Frequency and time transfer for metrology and beyond using telecommunication network fibres. <i>Comptes Rendus Physique</i> , 2015, 16, 531-539.	0.3	48
173	Core-shell magneto-optical trap for alkaline-earth-metal-like atoms. <i>Physical Review A</i> , 2015, 91, .	1.0	22
174	Cascaded optical link on a telecommunication fiber network for ultra-stable frequency dissemination. , 2015, , .		2
175	Space-time curvature signatures in Bose-Einstein condensates. <i>European Physical Journal D</i> , 2015, 69, 1.	0.6	7
176	In-field Raman amplification on coherent optical fiber links for frequency metrology. <i>Optics Express</i> , 2015, 23, 10604.	1.7	6
177	Doppler-stabilized fiber link with 6 dB noise improvement below the classical limit. <i>Optics Letters</i> , 2015, 40, 131.	1.7	18
178	Broadband, unpolarized repumping and clearout light sources for Sr ⁺ single-ion clocks. <i>Optics Letters</i> , 2015, 40, 1822.	1.7	16
179	Frequency comb-based multiple-access ultrastable frequency dissemination with 7 dB instability. <i>Optics Letters</i> , 2015, 40, 37.	1.7	13
180	SESSION SUMMARY: EXPERIMENTAL GRAVITATION. , 2015, , .		0
181	Light and the distribution of time. <i>Europhysics Letters</i> , 2015, 110, 40001.	0.7	13
182	Characterization of a 450 km baseline GPS carrier-phase link using an optical fiber link. <i>New Journal of Physics</i> , 2015, 17, 083044.	1.2	21

#	ARTICLE	IF	CITATIONS
183	Strontium optical lattice clocks for practical realization of the metre and secondary representation of the second. Measurement Science and Technology, 2015, 26, 075201.	1.4	26
184	A fiber link for the remote comparison of optical clocks and geodesy experiments. , 2015, , .		2
185	Quantum limit on time measurement in a gravitational field. Classical and Quantum Gravity, 2015, 32, 015018.	1.5	4
186	Design of an ultra-compact reference ULE cavity. Journal of Physics: Conference Series, 2016, 723, 012029.	0.3	9
187	General relativistic effects in quantum interference of "clocks". Journal of Physics: Conference Series, 2016, 723, 012044.	0.3	20
188	Linewidth suppression mechanism of self-injection locked single-frequency fiber laser. Optics Express, 2016, 24, 18907.	1.7	23
189	Relativistic Time Transfer for Inter-satellite Links. Frontiers in Astronomy and Space Sciences, 2016, 3, .	1.1	5
190	A micromechanical proof-of-principle experiment for measuring the gravitational force of milligram masses. Classical and Quantum Gravity, 2016, 33, 125031.	1.5	76
191	Development of a strontium optical lattice clock for the SOC mission on the ISS. Proceedings of SPIE, 2016, , .	0.8	10
192	Coherent Transfer of Optical Frequency over 112 km with Instability at the 10^{-20} Level. Chinese Physics Letters, 2016, 33, 114202.	1.3	26
193	Comparing a mercury optical lattice clock with microwave and optical frequency standards. New Journal of Physics, 2016, 18, 113002.	1.2	53
194	An approach to directly probe simultaneity. Modern Physics Letters A, 2016, 31, 1650157.	0.5	7
195	Gravitational wave detection with optical lattice atomic clocks. Physical Review D, 2016, 94, .	1.6	242
196	Forget Time. KronoScope, 2016, 16, 199-210.	0.1	0
197	Single electron relativistic clock interferometer. New Journal of Physics, 2016, 18, 093050.	1.2	17
198	Psychological Spacetime. SAGE Open, 2016, 6, 215824401667451.	0.8	3
199	A low noise optical frequency synthesizer at 700-990 nm. Applied Physics Letters, 2016, 109, .	1.5	14
200	Active laser ranging with frequency transfer using frequency comb. Applied Physics Letters, 2016, 108, 181101.	1.5	9

#	ARTICLE	IF	CITATIONS
201	Why does a ball fall?: A new visualization for Einstein's model of gravity. American Journal of Physics, 2016, 84, 396-402.	0.3	27
203	An Analysis of the Stationary Operation of Atomic Clocks. Communications in Mathematical Physics, 2016, 348, 363-393.	1.0	6
204	Optical frequency divider with division uncertainty at the 10^{-21} level. National Science Review, 2016, 3, 463-469.	4.6	28
205	Analytically exploiting noise correlations inside the feedback loop to improve locked-oscillator performance. Physical Review E, 2016, 94, 022204.	0.8	4
206	gevolution: a cosmological N-body code based on General Relativity. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 053-053.	1.9	107
207	Second harmonic generation at 399 nm resonant on the $^1S_0 \rightarrow ^1P_1$ transition of ytterbium using a periodically poled LiNbO ₃ waveguide. Optics Express, 2016, 24, 12142.	1.7	21
208	Hertz-Level Clock Spectroscopy of 171 Yb Atoms in a One-Dimensional Optical Lattice. Chinese Physics Letters, 2016, 33, 070601.	1.3	4
209	Chronometric measurement of orthometric height differences by means of atomic clocks. Gravitation and Cosmology, 2016, 22, 234-244.	0.3	9
210	Geopotential measurements with synchronously linked optical lattice clocks. Nature Photonics, 2016, 10, 662-666.	15.6	176
211	Aging and communication in the twin paradox. European Journal of Physics, 2016, 37, 065604.	0.3	0
212	Parameter estimation in atomic spectroscopy using exceptional points. Physical Review A, 2016, 93, .	1.0	14
213	Probing beyond the laser coherence time in optical clock comparisons. Physical Review A, 2016, 93, .	1.0	29
214	Influence of relativistic effects on satellite-based clock synchronization. Physical Review D, 2016, 93, .	1.6	26
215	Gaussian quantum steering and its asymmetry in curved spacetime. Physical Review D, 2016, 93, .	1.6	39
216	Synchronization of Distant Optical Clocks at the Femtosecond Level. Physical Review X, 2016, 6, .	2.8	85
217	Superradiance on the millihertz linewidth strontium clock transition. Science Advances, 2016, 2, e1601231.	4.7	143
218	A clock network for geodesy and fundamental science. Nature Communications, 2016, 7, 12443.	5.8	297
219	Ultra-stable clock laser system development towards space applications. Scientific Reports, 2016, 6, 33973.	1.6	49

#	ARTICLE	IF	CITATIONS
220	Theory of Beam Gravity and Mercury Anomaly. <i>Procedia Computer Science</i> , 2016, 102, 500-506.	1.2	0
221	Accuracy budget of the ^{88}Sr optical atomic clocks at KL FAMO. <i>Physica Scripta</i> , 2016, 91, 084003.	1.2	10
222	Demonstration of quantum synchronization based on second-order quantum coherence of entangled photons. <i>Scientific Reports</i> , 2016, 6, 30453.	1.6	42
223	Quantum projection noise limited stability of a $^{88}\text{Sr}^+$ atomic clock. <i>Journal of Physics: Conference Series</i> , 2016, 723, 012023.	0.3	1
224	Synchronization of clocks through 12 km of strongly turbulent air over a city. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	61
225	Is the time right for a redefinition of the second by optical atomic clocks?. <i>Journal of Physics: Conference Series</i> , 2016, 723, 012053.	0.3	29
226	Research on the optical system for space optical clock at NTSC. , 2016, , .		0
227	Bohr's Legacy in Cavity QED. <i>Progress in Mathematical Physics</i> , 2016, , 103-146.	0.4	0
228	Synchronous mode-locked laser network with sub-fs drift and multi-km distance. , 2016, , .		0
229	Modern Theory for Electromagnetic Metamaterials. <i>Plasmonics</i> , 2016, 11, 503-508.	1.8	9
230	Cold-Strontium Laser in the Superradiant Crossover Regime. <i>Physical Review X</i> , 2016, 6, .	2.8	70
231	Optomechanical Entanglement Between an Ion and an Optical Cavity Field. <i>International Journal of Theoretical Physics</i> , 2016, 55, 1944-1952.	0.5	5
232	Optical Lattice Clocks for Precision Time and Frequency Metrology. <i>Lecture Notes in Physics</i> , 2016, , 93-110.	0.3	1
233	Principles and Methods of Quantum Information Technologies. <i>Lecture Notes in Physics</i> , 2016, , .	0.3	16
234	Reply to 'Questioning universal decoherence due to gravitational time dilation'. <i>Nature Physics</i> , 2016, 12, 2-3.	6.5	4
235	Time, change and time without change. <i>Synthese</i> , 2017, 194, 3047-3067.	0.6	1
236	Prediction and real-time compensation of qubit decoherence via machine learning. <i>Nature Communications</i> , 2017, 8, 14106.	5.8	57
237	Attosecond precision multi-kilometer laser-microwave network. <i>Light: Science and Applications</i> , 2017, 6, e16187-e16187.	7.7	64

#	ARTICLE	IF	CITATIONS
238	Time dilation in quantum systems and decoherence. <i>New Journal of Physics</i> , 2017, 19, 025011.	1.2	45
239	Determination of a high spatial resolution geopotential model using atomic clock comparisons. <i>Journal of Geodesy</i> , 2017, 91, 597-611.	1.6	38
240	Classical Clocks in General Relativity. <i>Springer Theses</i> , 2017, , 9-28.	0.0	0
241	Progress in optical frequency standards: ultracold Thulium, ions, and passive resonators. <i>Journal of Physics: Conference Series</i> , 2017, 793, 012013.	0.3	0
242	Optical frequency standards for time and length applications. <i>Measurement Science and Technology</i> , 2017, 28, 012002.	1.4	61
243	A comparison of two $^{40}\text{Ca}^+$ single-ion optical frequency standards at the 5×10^{-17} level and an evaluation of systematic shifts. <i>Applied Physics B: Lasers and Optics</i> , 2017, 123, 1.	1.1	14
244	Gravitational time advancement under gravity's rainbow. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2017, 772, 152-158.	1.5	25
245	Direct Laser Cooling Al^{+} Ion Optical Clocks. <i>Chinese Physics Letters</i> , 2017, 34, 050601.	1.3	8
246	Realization of Closed-Loop Operation of Optical Lattice Clock Based on ^{171}Yb . <i>Chinese Physics Letters</i> , 2017, 34, 020601.	1.3	20
247	Optical clock networks. <i>Nature Photonics</i> , 2017, 11, 25-31.	15.6	174
248	Universal interrogation protocol with zero probe-field-induced frequency shift for quantum clocks and high-accuracy spectroscopy. <i>Physical Review A</i> , 2017, 96, .	1.0	14
249	Prospects for a bad-cavity laser using a large ion crystal. <i>Physical Review A</i> , 2017, 96, .	1.0	12
250	Relativistic Timekeeping, Motion, and Gravity in Distributed Systems. <i>Proceedings of the IEEE</i> , 2017, 105, 1511-1573.	16.4	4
251	Quantum to classical transition induced by gravitational time dilation. <i>Physical Review A</i> , 2017, 96, .	1.0	8
252	Computed Tidal Relativistic Red-Shifts of Frequency Standards on Earth and in Space Stations *. <i>Chinese Physics Letters</i> , 2017, 34, 110601.	1.3	0
253	Ion trap architectures and new directions. <i>Quantum Information Processing</i> , 2017, 16, 1.	1.0	19
254	Determination of Gravitational Potential at Ground Using Optical-Atomic Clocks on Board Satellites and on Ground Stations and Relevant Simulation Experiments. <i>Surveys in Geophysics</i> , 2017, 38, 757-780.	2.1	14
255	T 3-Interferometer for atoms. <i>Applied Physics B: Lasers and Optics</i> , 2017, 123, 1.	1.1	19

#	ARTICLE	IF	CITATIONS
256	A compact, transportable single-ion optical clock with 7.8×10^{-17} systematic uncertainty. Applied Physics B: Lasers and Optics, 2017, 123, 1.	1.1	82
257	Magnetically Induced Optical Transparency on a Forbidden Transition in Strontium for Cavity-Enhanced Spectroscopy. Physical Review Letters, 2017, 118, 263601.	2.9	29
258	Integral formulas for transformation of potential field parameters in Geosciences. Earth-Science Reviews, 2017, 164, 208-231.	4.0	17
259	Breaking the Femtosecond Barrier in Multi-Kilometer Timing Synchronization Systems. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 97-108.	1.9	12
260	Ultrastable optical clock with two cold-atom ensembles. Nature Photonics, 2017, 11, 48-52.	15.6	266
261	Hyperpolarizability and Operational Magic Wavelength in an Optical Lattice Clock. Physical Review Letters, 2017, 119, 253001.	2.9	64
262	On the absolute meaning of motion. Results in Physics, 2017, 7, 4195-4212.	2.0	0
263	Mass defect effects in atomic clocks. , 2017, , .		0
264	Transportable Clocks Move with the Times. Physics Magazine, 2017, 10, .	0.1	0
265	Autonomous frequency stabilization of two extended-cavity diode lasers at the potassium wavelength on a sounding rocket. Applied Optics, 2017, 56, 1388.	2.1	42
266	Low-loss reciprocal optical terminals for two-way time-frequency transfer. Applied Optics, 2017, 56, 9406.	0.9	23
267	Single-branch Er: fiber frequency comb for precision optical metrology with 10^{-18} fractional instability. Optica, 2017, 4, 879.	4.8	67
268	Theoretical Tools for Relativistic Gravimetry, Gradiometry and Chronometric Geodesy and Application to a Parameterized Post-Newtonian Metric. Universe, 2017, 3, 24.	0.9	6
269	Optical lattice clocks towards the redefinition of the second. Journal of Physics: Conference Series, 2017, 841, 012015.	0.3	9
270	Collisional frequency shift of a trapped-ion optical clock. Physical Review A, 2017, 96, .	1.0	14
271	Information transfer during the universal gravitational decoherence. General Relativity and Gravitation, 2017, 49, 1.	0.7	12
272	Measurement of the upper clock level lifetime in ^{169}Tm . Journal of Physics: Conference Series, 2017, 941, 012114.	0.3	0
273	Optical Lattice Clocks with Weakly Bound Molecules. Physical Review Letters, 2018, 120, 083202.	2.9	24

#	ARTICLE	IF	CITATIONS
274	A Survey of Optical Carrier Generation Techniques for Terabit Capacity Elastic Optical Networks. IEEE Communications Surveys and Tutorials, 2018, 20, 211-263.	24.8	89
275	Imaging Optical Frequencies with $\hat{\epsilon}$ Precision and 1.1 Resolution. Physical Review Letters, 2018, 120, 103201.	2.9	128
276	Atomic clocks for geodesy. Reports on Progress in Physics, 2018, 81, 064401.	8.1	145
277	Sub-femtosecond precision timing synchronization systems. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 907, 169-181.	0.7	7
278	T 3-Interferometer for Atoms. , 2018, , 457-489.		0
279	Comparing Optical Oscillators across the Air to Milliradians in Phase and $1^{0.9}$ in Frequency. Physical Review Letters, 2018, 120, 050801.	2.9	53
280	An optical clock to go. Nature Physics, 2018, 14, 431-432.	6.5	4
281	Mass defect effects in atomic clocks. Laser Physics Letters, 2018, 15, 035703.	0.6	7
282	Gravity in the quantum lab. Advances in Physics: X, 2018, 3, 1383184.	1.5	20
283	The CIPM list of recommended frequency standard values: guidelines and procedures. Metrologia, 2018, 55, 188-200.	0.6	189
284	Strontium optical lattice clock at the National Time Service Center. Chinese Physics B, 2018, 27, 023701.	0.7	31
285	Hybrid setup for stable magnetic fields enabling robust quantum control. Scientific Reports, 2018, 8, 4404.	1.6	5
286	Coherence in quantum estimation. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 025302.	0.7	27
287	Monogamy of Einstein-Podolsky-Rosen Steering in the Background of an Asymptotically Flat Black Hole. Annalen Der Physik, 2018, 530, 1700261.	0.9	10
288	Testing Photons Coupled to Weyl Tensor with Gravitational Time Advancement. Communications in Theoretical Physics, 2018, 70, 721.	1.1	8
289	Atomic combination clocks. New Journal of Physics, 2018, 20, 123026.	1.2	4
290	Radio-Frequency Transfer over a 1007-km Fiber Link by Passive Phase Conjugation. , 2018, , .		0
291	Optical frequency transfer over 400-km commercial fiber network with a fractional frequency instability of 10^{-19} level. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
292	Direct Selection and Amplification of an Optical Frequency Comb via Injection Locking for Second Cooling Laser of Strontium Optical Clock. , 2018, , .		0
293	Effects of mass defect in atomic clocks. Journal of Physics: Conference Series, 2018, 951, 012026.	0.3	0
294	Route to a Portable Optical Clock. , 2018, , .		2
295	Frequency spectrum of an optical resonator in a curved spacetime. New Journal of Physics, 2018, 20, 053046.	1.2	11
296	Recent Advances Concerning the ⁸⁷ Sr Optical Lattice Clock at the National Time Service Center. Applied Sciences (Switzerland), 2018, 8, 2194.	1.3	11
297	Ultra-low noise optical injection locking amplifier with AOM-based coherent detection scheme. Scientific Reports, 2018, 8, 13135.	1.6	8
298	Optimum Optical Frequency Combs for Telecommunications and Data Centre Networks. , 2018, , .		0
299	Atomic clock performance enabling geodesy below the centimetre level. Nature, 2018, 564, 87-90.	13.7	436
300	Some Thought Experiments in Physics. Resonance, 2018, 23, 965-991.	0.2	0
301	Satellite-Based Quantum Steering under the Influence of Spacetime Curvature of the Earth. Advanced Quantum Technologies, 2018, 1, 1800072.	1.8	16
304	The Einstein Equivalence Principle. , 0, , 11-60.		0
305	Gravitation as a Geometric Phenomenon. , 0, , 61-77.		0
306	The Parametrized Post-Newtonian Formalism. , 0, , 78-104.		0
307	Metric Theories of Gravity and Their Post-Newtonian Limits. , 0, , 105-128.		0
308	Equations of Motion in the PPN Formalism. , 0, , 129-155.		0
309	The Classical Tests. , 0, , 156-169.		0
310	Tests of the Strong Equivalence Principle. , 0, , 170-191.		0
311	Other Tests of Post-Newtonian Gravity. , 0, , 192-205.		0

#	ARTICLE	IF	CITATIONS
312	Structure and Motion of Compact Objects. , 0, , 206-231.		0
313	Gravitational Radiation. , 0, , 232-271.		0
314	Strong-Field and Dynamical Tests of Relativistic Gravity. , 0, , 272-307.		0
316	Ultra-broadband dual-branch optical frequency comb with 10^{18} instability. Optica, 2018, 5, 1070.	4.8	25
317	Quantum estimation in an expanding spacetime. Annals of Physics, 2018, 397, 336-350.	1.0	11
318	Stabilized Free-Space Optical Frequency Transfer. Physical Review Applied, 2018, 10, .	1.5	33
319	Geometrical Representation of Gravity Field Determination. Springer Theses, 2018, , 503-536.	0.0	0
320	Probing C (T) gravity with gravitational time advancement. Classical and Quantum Gravity, 2018, 35, 175013.	1.5	27
321	Lorentz and C tests with clock-comparison experiments. Physical Review D, 2018, 98, .	1.6	39
322	Two-way optical phase comparison at 10^{21} level. , 2018, , .		1
323	Delay Effect on Coherent Transfer of Optical Frequency Based on a Triple-Pass Scheme. Chinese Physics Letters, 2018, 35, 080601.	1.3	2
324	Quantum formulation of the Einstein equivalence principle. Nature Physics, 2018, 14, 1027-1031.	6.5	74
325	Quantum complementarity of clocks in the context of general relativity. Classical and Quantum Gravity, 2018, 35, 185003.	1.5	11
326	Effects of a brane world on gravitational time advancement. Modern Physics Letters A, 2018, 33, 1850110.	0.5	7
327	Molecular lattice clock with long vibrational coherence. Nature Physics, 2019, 15, 1118-1122.	6.5	65
328	Ramsey-Bordé Matter-Wave Interferometry for Laser Frequency Stabilization at 10^{16} Frequency Instability and Below. Physical Review Letters. 2019. 123. 073202.	2.9	29
329	Demonstration of 4.8×10^{-17} stability at $1 \mu\text{s}$ for two independent optical clocks. Nature Photonics, 2019, 13, 714-719.	13.6	287
330	Laboratory Modeling of the Giant Gravitational Shift of Gamma-Radiation Frequency. Doklady Physics, 2019, 64, 90-93.	0.2	0

#	ARTICLE	IF	CITATIONS
331	Bell's theorem for temporal order. Nature Communications, 2019, 10, 3772. Measurements of $\langle \text{mm1:math} \rangle$	5.8	86
332	$\langle \text{mm1:math} \rangle$ xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>A</mml:mi><mml:none /><mml:mo>+</mml:mo><mml:mprescripts /><mml:none /><mml:mn>27</mml:mn></mml:mmultiscripts></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Mg</mml:mi><mml:none /><mml:mo>+</mml:mo><mml:mprescripts /><mml:none /><mml:mn>25</mml:mn></mml:mmultiscripts></mml:math>	1.0	20
333	The influence of the Earth's curved spacetime on Gaussian quantum coherence. Laser Physics Letters, 2019, 16, 095201.	0.6	10
334	About the possibility of cosmological gravimetry using high-precision atomic clocks in nonmetric theories of gravitation. AIP Conference Proceedings, 2019, , .	0.3	0
335	Single-Beam Zeeman Slower and Magneto-Optical Trap Using a Nanofabricated Grating. Physical Review Applied, 2019, 11, .	1.5	35
337	Coupling atoms to cavities using narrow linewidth optical transitions: applications to frequency metrology. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 193001.	0.6	2
338	Optical clock spectroscopy in weakly bound molecules. Journal of Physics: Conference Series, 2019, 1289, 012002.	0.3	0
339	Stabilizing diode laser to 1ÂHz-level Allan deviation with atomic spectroscopy for Rb four-level active optical frequency standard. Applied Physics B: Lasers and Optics, 2019, 125, 1.	1.1	18
340	Free-space transfer of comb-rooted optical frequencies over an 18â%km open-air link. Nature Communications, 2019, 10, 4438.	5.8	39
341	Embedding Diagrams - a Hands-on Activity for Understanding Spatial Curvature. Journal of Physics: Conference Series, 2019, 1287, 012008.	0.3	1
342	Development of a Portable Optical Clock. , 2019, , .		3
343	Comb Line Multiplication in an Integrated Optical Frequency Comb Generator. , 2019, , .		1
344	Comb Line Multiplication in an InP Integrated Photonic Circuit Based on Cascaded Modulators. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-7.	1.9	14
345	The absolute meaning of motion to the optical path. Results in Physics, 2019, 14, 102410.	2.0	0
346	Seconds-scale coherence on an optical clock transition in a tweezer array. Science, 2019, 366, 93-97.	6.0	95
347	Interference of clocks: A quantum twin paradox. Science Advances, 2019, 5, eaax8966.	4.7	24
348	ULPAC: A Miniaturized Ultralow-Power Atomic Clock. IEEE Journal of Solid-State Circuits, 2019, 54, 3135-3148.	3.5	30
349	New frequency shift caused by accelerations. Optik, 2019, 180, 511-516.	1.4	2

#	ARTICLE	IF	CITATIONS
350	Multipartite Quantum Clock Synchronization under The Influence of Unruh Thermal Noise. Annalen Der Physik, 2019, 531, 1900067.	0.9	1
351	Quadrupole Shift Cancellation Using Dynamic Decoupling. Physical Review Letters, 2019, 122, 223204.	2.9	13
352	Simultaneous Transmission of Photonic Services over One Fiber with an ITU 100 GHz Grid. Sensors, 2019, 19, 1601.	2.1	3
353	Comb-rooted multi-channel synthesis of ultra-narrow optical frequencies of few Hz linewidth. Scientific Reports, 2019, 9, 7652.	1.6	16
354	Towards a transportable aluminium ion quantum logic optical clock. Review of Scientific Instruments, 2019, 90, 053204.	0.6	42
355	Relativistic tidal effects on clock-comparison experiments. Classical and Quantum Gravity, 2019, 36, 055008.	1.5	7
356	Gravitational Mass Carried by Sound Waves. Physical Review Letters, 2019, 122, 084501.	2.9	17
357	Factor Indeterminacy as Metrological Uncertainty: Implications for Advancing Psychological Measurement. Multivariate Behavioral Research, 2019, 54, 429-443.	1.8	59
358	Femtosecond optical two-way time-frequency transfer in the presence of motion. Physical Review A, 2019, 99, .	1.0	29
359	C-band 41-wavelength-switchable single-longitudinal-mode fiber laser with sub-kHz linewidth and high stability using a wide-band chirped Moiré fiber Bragg grating. Laser Physics Letters, 2019, 16, 025106.	0.6	14
361	Joint Frequency and Time Transfer Over Optical Fiber With High-Precision Delay Variation Measurement Using a Phase-Locked Loop. IEEE Photonics Journal, 2019, 11, 1-8.	1.0	12
362	Gravitational redshift and the vacuum index of refraction. Astrophysics and Space Science, 2019, 364, 1.	0.5	1
363	Chronometric Geodesy: Methods and Applications. Fundamental Theories of Physics, 2019, , 25-85.	0.1	10
364	Time and Gravity. KronoScope, 2019, 19, 39-56.	0.1	0
365	Two-way Optical Phase Comparison at 10 ⁻²¹ Level over 200-km fiber link. , 2019, , .		0
366	Application of ultra-stable laser in coherent optical frequency transfer. , 2019, , .		0
368	Dichroic Two-Photon Rubidium Frequency Standard. Physical Review Applied, 2019, 12, .	1.5	16
369	Observer dependence of entanglement in nonrelativistic quantum mechanics. Physical Review A, 2019, 100, .	1.0	5

#	ARTICLE	IF	CITATIONS
370	Development of ultrastable lasers at 1.5 μ m. , 2019, , .		0
371	Observation of $^1S_0 \rightarrow ^3P_0$ Transition of a $^{40}\text{Ca}^+$ - $^{27}\text{Al}^+$ Quantum Logic Clock*. Chinese Physics Letters, 2019, 36, 120601.	1.3	10
372	Detection of the 5p \leftrightarrow 4f orbital crossing and its optical clock transition in Pr ⁹⁺ . Nature Communications, 2019, 10, 5651.	5.8	28
373	Formulation of Determining the Gravity Potential Difference Using Ultra-High Precise Clocks via Optical Fiber Frequency Transfer Technique. Journal of Earth Science (Wuhan, China), 2019, 30, 422-428.	1.1	12
374	Clock networks for height system unification: a simulation study. Geophysical Journal International, 2019, 216, 1594-1607.	1.0	13
375	A study of clock effects in Newton's "Maxwell formalism. Geodesy and Geodynamics, 2020, 11, 72-77.	1.0	0
376	Optical Atomic Clocks for Redefining SI Units of Time and Frequency. Mapan - Journal of Metrology Society of India, 2020, 35, 531-545.	1.0	9
377	Quantum clocks observe classical and quantum time dilation. Nature Communications, 2020, 11, 5360.	5.8	50
378	The six scenario archetypes framework: A systematic investigation of science fiction films set in the future. Futures, 2020, 124, 102645.	1.4	18
379	Investigation of experimental issues concerning successful operation of quantum-logic-based $^{27}\text{Al}^+$ ion optical clock. Applied Physics B: Lasers and Optics, 2020, 126, 1.	1.1	7
380	Extended gravitational clock compass: New exact solutions and simulations. Physical Review D, 2020, 102, .	1.6	1
381	Geopotential Determination Based on Precise Point Positioning Time Comparison: A Case Study Using Simulated Observation. IEEE Access, 2020, 8, 204283-204294.	2.6	4
382	Geopotential measurement with a robust, transportable ^{133}Cs optical clock. Physical Review A, 2020, 102, .	1.0	13
383	An Experimental Test of the Classical Interpretation of the Kaluza Fifth Dimension. Physics, 2020, 2, 587-595.	0.5	1
384	Novel Polarization Control Approach to Long-Term Fiber-Optic Frequency Transfer. Chinese Physics Letters, 2020, 37, 094201.	1.3	4
385	Cascaded optical frequency transfer over 500-km fiber link using regenerative amplifier*. Chinese Physics B, 2020, 29, 054205.	0.7	6
386	Rabi spectroscopy of the clock transition in thulium atoms in a one-dimensional optical lattice. Quantum Electronics, 2020, 50, 220-224.	0.3	6
387	An Evaluation of the Zeeman Shift of the ^{87}Sr Optical Lattice Clock at the National Time Service Center. Applied Sciences (Switzerland), 2020, 10, 1440.	1.3	7

#	ARTICLE	IF	CITATIONS
388	Laboratory Courses on Laser Spectroscopy and Atom Trapping. <i>Atoms</i> , 2020, 8, 25.	0.7	0
389	Nonclassical effects in geodesic motion. <i>Physical Review D</i> , 2020, 101, .	1.6	2
390	An experimental test of the geodesic rule proposition for the noncyclic geometric phase. <i>Science Advances</i> , 2020, 6, eaay8345.	4.7	17
391	Electrostatic time dilation and redshift. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2020, 802, 135212.	1.5	1
392	Gravitational Redshift in Quantum-Clock Interferometry. <i>Physical Review X</i> , 2020, 10, .	2.8	45
393	General expansion of time transfer functions in optical spacetime. <i>Physical Review D</i> , 2020, 101, .	1.6	4
394	Radiative transition properties of singly charged magnesium, calcium, strontium and barium ions. <i>Atomic Data and Nuclear Data Tables</i> , 2021, 137, 101381.	0.9	12
395	Demonstration of the Systematic Evaluation of an Optical Lattice Clock Using the Drift-Insensitive Self-Comparison Method. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 1206.	1.3	3
396	Optical frequency synthesizer referenced to an ytterbium optical clock. <i>Photonics Research</i> , 2021, 9, 98.	3.4	12
397	Evaluation of systematic uncertainty for transportable ^{87}Sr optical lattice clock. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2021, 70, 030601.	0.2	1
398	Probing multiple electric-dipole-forbidden optical transitions in highly charged nickel ions. <i>Physical Review A</i> , 2021, 103, .	1.0	13
399	Gravity Probe Spin: Prospects for measuring general-relativistic precession of intrinsic spin using a ferromagnetic gyroscope. <i>Physical Review D</i> , 2021, 103, .	1.6	18
400	Narrow-linewidth self-injection locked diode laser with a high-Q fiber Fabry-Pérot resonator. <i>Optics Letters</i> , 2021, 46, 1397.	1.7	10
401	Measurement of gravitational coupling between millimetre-sized masses. <i>Nature</i> , 2021, 591, 225-228.	13.7	68
402	Simulation and Experiment of the cooling effect of trapped ion by pulsed laser. <i>Chinese Physics B</i> , 0, , .	0.7	0
403	Frame dragging and the Hong-Ou-Mandel dip: Gravitational effects in multiphoton interference. <i>Physical Review Research</i> , 2021, 3, .	1.3	10
404	Potential and scientific requirements of optical clock networks for validating satellite-derived time-variable gravity data. <i>Geophysical Journal International</i> , 2021, 226, 764-779.	1.0	4
405	Quantum time dilation in atomic spectra. <i>Physical Review Research</i> , 2021, 3, .	1.3	9

#	ARTICLE	IF	CITATIONS
406	Theoretical calculations of hyperfine splitting, Zeeman shifts, and isotope shifts of $^{27}\text{Al}^+$ and logical ions in Al^+ clocks. Chinese Physics B, 0, , .	0.7	0
407	Optical frequency standard with a single $^{171}\text{Yb}^+$ ion. Quantum Electronics, 2021, 51, 473-478.	0.3	1
408	Do supernovae indicate an accelerating universe?. European Physical Journal: Special Topics, 2021, 230, 2067-2076.	1.2	16
409	Dipole-Dipole Frequency Shifts in Multilevel Atoms. Physical Review Letters, 2021, 127, 013401.	2.9	9
410	Towards communication in a curved spacetime geometry. Communications Physics, 2021, 4, .	2.0	17
411	Numerical analysis of motional mode coupling of sympathetically cooled two-ion crystals*. Chinese Physics B, 2021, 30, 073702.	0.7	1
412	Narrow-linewidth single-polarization fiber laser using non-polarization optics. Optics Letters, 2021, 46, 3769.	1.7	14
413	Tune-out and magic wavelengths, and electric quadrupole transition properties of the singly charged alkaline-earth metal ions. Atomic Data and Nuclear Data Tables, 2021, 140, 101422.	0.9	2
414	Thermal Noise in Cubic Optical Cavities. Photonics, 2021, 8, 261.	0.9	7
415	Vibration modes of a transportable optical cavity. Optics Express, 2021, 29, 24264.	1.7	6
416	Steady-state magneto-optical trap of fermionic strontium on a narrow-line transition. Physical Review Research, 2021, 3, .	1.3	7
417	Research on Shock Acceleration Limit of an Ultra-Stable Optical Cavity for Space Applications Based on the Finite Element Methodology. Crystals, 2021, 11, 998.	1.0	0
418	Investigating the Selective Control of Photoassociation of Yb_2 . International Journal of Optics, 2021, 2021, 1-9.	0.6	0
419	Phase-stabilized free-space link for optical frequency transfer. Optics Communications, 2022, 504, 127481.	1.0	4
420	Simulation experiments on high-precision VGOS time transfer for future geopotential difference determination. Advances in Space Research, 2021, 68, 2453-2469.	1.2	3
422	Wavelength-switchable ultra-narrow linewidth fiber laser enabled by a figure-8 compound-ring-cavity filter and a polarization-managed four-channel filter. Optics Express, 2021, 29, 31179.	1.7	27
423	Validating frequency transfer via interferometric fiber links for optical clock comparisons. New Journal of Physics, 2021, 23, 093024.	1.2	1
424	Measuring gravitational time dilation with delocalized quantum superpositions. Physical Review D, 2021, 104, .	1.6	11

#	ARTICLE	IF	CITATIONS
425	Stable Time Transfer Over 120km Optical Fiber with High-Precision Delay Variation Measurement. Lecture Notes in Electrical Engineering, 2021, , 1862-1868.	0.3	0
426	Achieving the Ultimate Quantum Timing Resolution. PRX Quantum, 2021, 2, .	3.5	39
427	Point-to-point stabilized optical frequency transfer with active optics. Nature Communications, 2021, 12, 515.	5.8	40
428	An Introduction to Trapped Ions, Scalability and Quantum Metrology. , 2014, , 211-245.		1
429	Model of Nonlinear Fractal Oscillator in Nanosystem. Springer Proceedings in Mathematics and Statistics, 2014, , 337-350.	0.1	3
430	Relativistic Quantum Clocks. Tutorials, Schools, and Workshops in the Mathematical Sciences, 2017, , 51-68.	0.3	6
431	Membrane Systems and Hypercomputation. Lecture Notes in Computer Science, 2013, , 78-87.	1.0	2
432	Evolution of Astrophysics: Stars, Galaxies, Dark Matter, and Particle Acceleration. , 2012, , 71-102.		1
434	Relativity comes down to Earth. Nature, 0, , .	13.7	2
435	The new SI and the fundamental constants of nature. European Journal of Physics, 2020, 41, 063003.	0.3	7
436	A strontium optical lattice clock with $1 \text{ Å} \sim 10^{17}$ uncertainty and measurement of its absolute frequency. Metrologia, 2020, 57, 065026.	0.6	22
437	Absolute frequency measurement of an Yb optical clock at the 10^{16} level using International Atomic Time. Metrologia, 2020, 57, 065017.	0.6	18
438	Improved estimate of the collisional frequency shift in Al ⁺ optical clocks. Physical Review Research, 2019, 1, .	1.3	2
439	Optical atomic clock comparison through turbulent air. Physical Review Research, 2020, 2, .	1.3	16
440	Frequency stabilization of a 650nm laser to an I2 spectrum for trapped Ba ¹³⁸⁺ ions. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 243.	0.9	2
441	Precision spectroscopy and frequency stabilization using coin-sized laser modules. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 631.	0.9	6
442	Direct phase-locking of a Ti:Sapphire optical frequency comb to a remote optical frequency standard. Optics Express, 2019, 27, 15649.	1.7	4
443	Four-wavelength-switchable SLM fiber laser with sub-kHz linewidth using superimposed high-birefringence FBG and dual-coupler ring based compound-cavity filter. Optics Express, 2019, 27, 36662.	1.7	35

#	ARTICLE	IF	CITATIONS
444	Reciprocity of propagation in optical fiber links demonstrated to 10^{-21} . Optics Express, 2019, 27, 36965.	1.7	11
445	Sub-ps resolution clock-offset measurement over a 114 km fiber link using linear optical sampling. Optics Express, 2020, 28, 39400.	1.7	7
446	Seeded optical parametric oscillator light source for precision spectroscopy. Optics Letters, 2020, 45, 1013.	1.7	8
447	Simulation and realization of a second-order quantum-interference-based quantum clock synchronization at the femtosecond level. Optics Letters, 2019, 44, 614.	1.7	17
448	Studies of thorium and ytterbium ion trap loading from laser ablation for gravity monitoring with nuclear clocks. OSA Continuum, 2020, 3, 2210.	1.8	3
449	Universal quantum modifications to general relativistic time dilation in delocalised clocks. Quantum - the Open Journal for Quantum Science, 0, 4, 309.	0.0	15
450	The Uniformly Accelerated Frame as a Test Bed for Analysing the Gravitational Redshift. Universe, 2021, 7, 4.	0.9	3
451	Demonstration of the frequency-drift-induced self-comparison measurement error in optical lattice clocks. Japanese Journal of Applied Physics, 2020, 59, 070903.	0.8	5
452	Optical frequency comb active filtering and amplification for second cooling laser of strontium optical clock. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 080601.	0.2	2
453	Strontium optical lattice clock. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 160604.	0.2	8
454	Quantum switch in the gravity of Earth. Physical Review A, 2021, 104, .	1.0	4
455	Two-Way Link for Time Interval Comparison of Optical Clocks over Free-Space. , 2012, , .		0
456	Matter Waves in a Static Gravitational Field. Journal of Modern Physics, 2012, 03, 750-754.	0.3	1
457	Estimate and Forecast Air Freight Rates Using Stepwise Regression(From Incheon to LA and Frankfurt). Journal of Distribution and Management Research, 2012, 15, 17-26.	0.0	0
458	The Nobel Prize in Physics 2012: Progress in Cavity Quantum Electrodynamics. The Review of Laser Engineering, 2013, 41, 474.	0.0	0
459	Optical Frequency Transfer over a single-span 1840 km Fiber Link. , 2013, , .		1
460	Performance analysis of optical free-space two-way time-frequency transfer. , 2013, , .		0
461	Free-Space Optical Time-Frequency Transfer Over 2 km. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
463	Study on a Precise Frequency Comparison System using an Optical Carrier. IEEJ Transactions on Electronics, Information and Systems, 2014, 134, 526-533.	0.1	0
464	Study of optical frequency transfer via fiber. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 120602.	0.2	6
465	Cristaux coulombiens: de la technologie quantique à la chimie proche du zéro absolu. , 2015, , 91-94.	0.1	0
466	Das Äquivalenzprinzip in Aktion. , 2016, , 67-83.		0
467	Microwave Frequency Standards Using New Physics. , 2015, , 191-343.		0
468	Cosmic Time: From the Big Bang to the Eternal Future. Thirty Years of Astronomical Discovery With UKIRT, 2017, , 1-13.	0.3	0
470	Er:fiber frequency comb for optical synthesis with mHz resolution. , 2017, , .		0
471	Comb-based Optical Frequency Transfer in Free Space. , 2017, , .		0
472	Trapped-ion optical Atomic Clocks at the Quantum Limits. , 0, , .		1
473	Alzheimer DNA Vaccine and Relativistic Time Dilation. Journal of Neurology & Stroke, 2017, 7, .	0.0	2
474	Characterization of an ultra-stable optical cavity developed in the industry for space applications. , 2017, , .		0
476	Optical frequency transfer over 377 km urban fiber link using EDFAs. , 2018, , .		0
477	Long-haul Transfer of Optical Frequencies in Free Space. , 2019, , .		0
478	Comb-rooted synthesis of ultra-narrow multiple optical frequencies of few Hz linewidth. , 2019, , .		0
479	The Unification Power of Symmetry. The Frontiers Collection, 2019, , 93-138.	0.1	1
480	The First Quantum Co-processor Hybrid for Processing Quantum Point Cloud Multimodal Sensor Data. Advances in Intelligent Systems and Computing, 2020, , 411-426.	0.5	1
481	A conceptual essay on the nature of spacetime. Physics Essays, 2020, 33, 400-427.	0.1	0
482	Measurement of the Rb g -series quantum defect using two-photon microwave spectroscopy. Physical Review A, 2020, 102, .	1.0	7

#	ARTICLE	IF	CITATIONS
483	Probing modified gravity with magnetically levitated resonators. <i>Physical Review D</i> , 2021, 104, .	1.6	6
484	Gravitational Redshift Tests with Atomic Clocks and Atom Interferometers. <i>PRX Quantum</i> , 2021, 2, .	3.5	16
486	Quantum probe of space-time curvature. <i>Science</i> , 2022, 375, 142-143.	6.0	6
487	Decoherence of Atomic Ensembles in Optical Lattice Clocks by Gravity. <i>Journal of the Physical Society of Japan</i> , 2022, 91, .	0.7	1
488	A compact, transportable optical clock with $1\text{Å}-10\hat{\sim}^{17}$ uncertainty and its absolute frequency measurement. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	11
489	Effective sideband cooling in an ytterbium optical lattice clock. <i>Chinese Physics B</i> , 0, , .	0.7	0
490	Quantum speedup dynamics process in Schwarzschild space-time. <i>Results in Physics</i> , 2022, , 105278.	2.0	0
491	Advances in the study of ion trap structures in Quantum computation and simulation. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2022, .	0.2	1
492	Experimental observation of quantum tunneling in shallow optical lattice. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2022, 71, 073701.	0.2	0
494	Atomic clouds stabilized to measure dilation of time. <i>Nature</i> , 2022, 602, 391-392.	13.7	4
495	Resolving the gravitational redshift across a millimetre-scale atomic sample. <i>Nature</i> , 2022, 602, 420-424.	13.7	167
496	Differential clock comparisons with a multiplexed optical lattice clock. <i>Nature</i> , 2022, 602, 425-430.	13.7	56
497	Floquet Engineering Hz-Level Rabi Spectra in Shallow Optical Lattice Clock. <i>Physical Review Letters</i> , 2022, 128, 073603.	2.9	10
498	Slow light frequency reference cavitiesâ”proof of concept for reducing the frequency sensitivity due to length fluctuations. <i>New Journal of Physics</i> , 2022, 24, 033034.	1.2	2
499	Laboratory demonstration of geopotential measurement using transportable optical clocks. <i>Chinese Physics B</i> , 0, , .	0.7	1
500	Cognitive bias in physics, with respect to Einsteinâ€™s relativity, is demonstrated by the famous experiment of Pound and Rebka (1960), which in reality refutes Einsteinâ€™s general relativity. <i>Physics Essays</i> , 2022, 35, 91-99.	0.1	3
501	Heisenberg-Limited Frequency Estimation via Driving Through Quantum Phase Transitions. <i>Physical Review Applied</i> , 2021, 16, .	1.5	2
502	All polarization-maintaining Er:fiber-based optical frequency comb for frequency comparison of optical clocks. <i>Chinese Physics B</i> , 2022, 31, 054210.	0.7	4

#	ARTICLE	IF	CITATIONS
503	Assessing the Precision of Quantum Simulation of Many-Body Effects in Atomic Systems Using the Variational Quantum Eigensolver Algorithm. Quantum Reports, 2022, 4, 173-192.	0.6	0
504	Light propagation and atom interferometry in gravity and dilaton fields. Physical Review D, 2022, 105, .	1.6	7
505	Genuine N-partite entanglement and distributed relationships in the background of dilation black holes. European Physical Journal C, 2022, 82, 1.	1.4	16
506	Dual optical frequency combs with ultra-low relative phase jitters from 550 nm to 1020 nm for precision spectroscopy. Optics Express, 2022, 30, 18703.	1.7	0
507	Advances in the study of ion trap structures in quantum computation and simulation. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 133701.	0.2	0
508	Contradiction in Einstein's subjective explanation of the gravitational and kinematic time dilation. Physics Essays, 2022, 35, 181-190.	0.1	3
509	Gravity-enhanced quantum spatial target detection. Physical Review A, 2022, 105, .	1.0	5
510	Widely Wavelength-Swept Single-Longitudinal-Mode Fiber Laser With Ultra-Narrow Linewidth in C+L-Band. IEEE Photonics Journal, 2022, 14, 1-10.	1.0	9
511	Simultaneous Optical and Radio Frequency Transmission Using Optical Phase Stabilization Combined With Phase Conjugation Technology. IEEE Photonics Journal, 2022, 14, 1-6.	1.0	1
512	Incoherent Rayleigh scattering noise depression for single laser stable radio frequency transmission. IEEE Photonics Technology Letters, 2022, , 1-1.	1.3	0
513	Gravitational Time Dilation inside the Solid Sphere. Journal of Modern Physics, 2022, 13, 1053-1064.	0.3	0
514	Micius quantum experiments in space. Reviews of Modern Physics, 2022, 94, .	16.4	71
515	Frequency stabilization of multiple wavelength lasers based on a broadband spectrum. Laser Physics Letters, 2022, 19, 095701.	0.6	2
516	Scanning dual-microcomb spectroscopy. Science China: Physics, Mechanics and Astronomy, 2022, 65, .	2.0	8
517	High-Performance Microwave Frequency Standard Based on Sympathetically Cooled Ions. Physical Review Applied, 2022, 18, .	1.5	6
518	Evaluation of the systematic shifts of a $^{40}\text{Ca}^{+}$ $^{27}\text{Al}^{+}$ optical clock. European Physical Journal D, 2022, 76, .	0.6	9
519	Adiabatic control of decoherence-free subspaces in an open collective system. Physical Review A, 2022, 106, .	1.0	2
520	Performance Evaluation and Requirement Analysis for Chronometric Leveling with High-Accuracy Optical Clocks. Remote Sensing, 2022, 14, 4141.	1.8	0

#	ARTICLE	IF	CITATIONS
521	Experiment with a laser and a mirror to accurately measure the Hubble constant. <i>Modern Physics Letters A</i> , 2022, 37, .	0.5	1
522	An elementary quantum network of entangled optical atomic clocks. <i>Nature</i> , 2022, 609, 689-694.	13.7	31
523	A Lorentzian narrow-linewidth demodulation scheme based on a short fiber delayed self-heterodyne technique. <i>Applied Physics Express</i> , 2022, 15, 106502.	1.1	2
524	<i>Ab initio</i> quantum theory of mass defect and time dilation in trapped-ion optical clocks. <i>Physical Review A</i> , 2022, 106, .	1.0	4
525	N-partite coherence of bosonic fields in the background of a Schwarzschild black hole. <i>Quantum Information Processing</i> , 2022, 21, .	1.0	2
526	Investigation of proper time and inter-satellite clock difference using general relativity theory. <i>Aerospace Science and Technology</i> , 2023, 132, 108071.	2.5	2
527	A note on the mechanics emerged from systems with a stochastic process of the time variable. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2023, 609, 128334.	1.2	0
528	Methods of quantum logic in ion frequency standards, quantum computers, and modern spectroscopy. <i>Physics-Uspexhi</i> , 2022, 65, 1217-1223.	0.8	11
530	Entanglement-enhanced optical atomic clocks. <i>Applied Physics Letters</i> , 2022, 121, .	1.5	9
531	Research on Brownian Thermal Noise Limit of a Cylindrical Ultra-Stable Cavity with Support Pads. <i>Crystals</i> , 2022, 12, 1682.	1.0	0
532	Gravitational Redshift Induces Quantum Interference. <i>Annalen Der Physik</i> , 2023, 535, .	0.9	5
533	Quantum clocks, gravitational time dilation, and quantum interference. <i>Physical Review D</i> , 2022, 106, .	1.6	3
534	Adaptive optics LEO uplink pre-compensation with finite spatial modes. <i>Optics Letters</i> , 2023, 48, 880.	1.7	5
535	Quantum memories for fundamental science in space. <i>Quantum Science and Technology</i> , 2023, 8, 024006.	2.6	4
536	Effective linewidth compression of a single-longitudinal-mode fiber laser with randomly distributed high scattering centers in the fiber induced by femtosecond laser pulses. <i>Optics Express</i> , 2023, 31, 4238.	1.7	8
537	The LARES 2 satellite, general relativity and fundamental physics. <i>European Physical Journal C</i> , 2023, 83, .	1.4	3
538	Entanglement of Hybrid State in Noninertial Frame. <i>International Journal of Theoretical Physics</i> , 2023, 62, .	0.5	0
539	Combining data and theory for derivable scientific discovery with AI-Descartes. <i>Nature Communications</i> , 2023, 14, .	5.8	13

#	ARTICLE	IF	CITATIONS
540	Theoretical and experimental study on vibration sensitivity of a transportable spherical optical reference cavity with multi-channel. Optics Communications, 2023, 537, 129459.	1.0	1
541	Residual timing jitter in the free-space optical two-way time and frequency transfer caused by atmospheric turbulence. Optics and Laser Technology, 2023, 163, 109365.	2.2	1
542	Modelling and design of ultra-high stable Fabry-Pérot cavity. International Journal of Mechanical Sciences, 2023, 250, 108299.	3.6	1
544	Optical frequency transfer with below 10^{-21} uncertainty using a DFB laser-based fiber Brillouin amplifier. APL Photonics, 2023, 8, 036113.	3.0	0
545	Bosonic Pair Production and Squeezing for Optical Phase Measurements in Long-Lived Dipoles Coupled to a Cavity. Physical Review Letters, 2023, 130, .	2.9	5
546	Fully digital platform for local ultra-stable optical frequency distribution. Review of Scientific Instruments, 2023, 94, 034716.	0.6	1
547	A free-space interferometer design for optical frequency dissemination and out-of-loop characterization below the 10^{-21} -level. Photonics Research, 0, , .	3.4	0
552	The development of active optical clock. AAPPS Bulletin, 2023, 33, .	2.7	5
563	Optical Ramsey Spectroscopy with Superradiance Enhanced Readout. , 2023, , .		0
580	Demonstration of Real-Time Precision Optical Time Synchronization in a True Three-Node Architecture. , 0, , .		0