

Sebastien Bize

List of Publications by Year in descending order

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134
papers

6,112
citations

50276

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76
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146
all docs

146
docs citations

146
times ranked

2504
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct comparisons of European primary and secondary frequency standards via satellite techniques. Metrologia, 2020, 57, 045005.	1.2	20
2	Accurate laser frequency locking to optical frequency combs under low-signal-to-noise-ratio conditions. Review of Scientific Instruments, 2020, 91, 033202.	1.3	4
3	Search for transient variations of the fine structure constant and dark matter using fiber-linked optical atomic clocks. New Journal of Physics, 2020, 22, 093010.	2.9	67
4	The unit of time: Present and future directions. Comptes Rendus Physique, 2019, 20, 153-168.	0.9	37
5	Creation of the first Russian time and frequency standard on a fountain of ultracold rubidium atoms. Quantum Electronics, 2018, 48, 967-972.	1.0	7
6	UTC(OP) Based on LNE-SYRTE Primary Frequency Standards: Five Years of Continuous Operation. , 2018, , .		0
7	Lorentz-Symmetry Test at Planck-Scale Suppression With a Spin-Polarized ^{133}Cs Cold Atom Clock. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 945-949.	3.0	2
8	Determination of a high spatial resolution geopotential model using atomic clock comparisons. Journal of Geodesy, 2017, 91, 597-611.	3.6	38
9	First international comparison of fountain primary frequency standards via a long distance optical fiber link. Metrologia, 2017, 54, 348-354.	1.2	64
10	Lorentz-symmetry test at Planck-scale suppression with nucleons in a spin-polarized ^{133}Cs cold atom clock. Physical Review D, 2017, 95, .	4.7	33
11	Preliminary stability analysis of Rb fountains for timescale generation. , 2017, , .		1
12	Lorentz-symmetry test at Planck-scale suppression with a spin-polarized ^{133}Cs cold atom clock. , 2017, , .		0
13	Real-Time Realization of UTC at Observatoire de Paris. Thirty Years of Astronomical Discovery With UKIRT, 2017, , 119-122.	0.3	0
14	Improved Tests of Lorentz Invariance in the Matter Sector Using Atomic Clocks. , 2017, , .		0
15	Characterization of an ultra-stable optical cavity developed in the industry for space applications. , 2017, , .		0
16	UTC(OP) based on LNE-SYRTE atomic fountain primary frequency standards. Metrologia, 2016, 53, S81-S88.	1.2	53
17	Optical to microwave clock frequency ratios with a nearly continuous strontium optical lattice clock. Metrologia, 2016, 53, 1123-1130.	1.2	74
18	Development of a strontium optical lattice clock for the SOC mission on the ISS. Proceedings of SPIE, 2016, , .	0.8	10

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19	Comparing a mercury optical lattice clock with microwave and optical frequency standards. New Journal of Physics, 2016, 18, 113002.	2.9	53
20	A mercury optical lattice clock at LNE-SYRTE. Journal of Physics: Conference Series, 2016, 723, 012017.	0.4	4
21	Time and frequency activities at LNE-SYRTE related to global navigation satellite systems. , 2016, , .		0
22	Searching for an Oscillating Massive Scalar Field as a Dark Matter Candidate Using Atomic Hyperfine Frequency Comparisons. Physical Review Letters, 2016, 117, 061301.	7.8	151
23	Ultra-stable clock laser system development towards space applications. Scientific Reports, 2016, 6, 33973.	3.3	49
24	High-Stability Comparison of Atomic Fountains Using Two Different Cryogenic Oscillators. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 1198-1203.	3.0	21
25	Atomic fountains and optical clocks at SYRTE: Status and perspectives. Comptes Rendus Physique, 2015, 16, 461-470.	0.9	31
26	Development of a strontium optical lattice clock for the SOC mission on the ISS. Comptes Rendus Physique, 2015, 16, .	0.9	74
27	Stability analysis of the French timescale UTC(OP). , 2015, , .		0
28	Performances of UTC(OP) based on LNE-SYRTE atomic fountains. , 2014, , .		1
29	Performances of UTC(OP) based on LNE-SYRTE atomic fountains. , 2014, , .		2
30	Statistical uncertainty of 2.5×10^{-16} for the ^{199}Hg	2.5	14
31	Contributing to TAI with a secondary representation of the SI second. Metrologia, 2014, 51, 108-120.	1.2	60
32	Strontium optical lattice clocks at LNE-SYRTE. , 2014, , .		0
33	Performances of UTC(OP) based on LNE-SYRTE atomic fountains. , 2014, , .		4
34	Experimental realization of an optical second with strontium lattice clocks. Nature Communications, 2013, 4, 2109.	12.8	192
35	Testing local position and fundamental constant invariance due to periodic gravitational and boost using long-term comparison of the SYRTE atomic fountains and H-masers. Physical Review D, 2013, 87, .	4.7	22
36	The new UTC(OP) based on LNE-SYRTE atomic fountains. , 2013, , .		7

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37	Optical Lattice Clocks as Candidates for a Possible Redefinition of the SI Second. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 1568-1573.	4.7	6
38	Development of compact lattice optical clocks towards future space clocks. , 2013, , .		0
39	International timescales with optical clocks (ITOC). , 2013, , .		10
40	Laser locking to the $^{199}\text{Hg } ^1\text{S}_0 \rightarrow ^3\text{P}_0$ clock transition with $54 \text{ \AA} - 10^{-15}$ fractional frequency instability. Optics Letters, 2012, 37, 3477.	3.3	23
41	Prototype of an ultra-stable optical cavity for space applications. Optics Express, 2012, 20, 25409.	3.4	87
42	Testing for periodic changes in fundamental constants using long-term comparison of the SYRTE Cs fountains and H-masers. , 2012, , .		0
43	Neutral Atom Frequency Reference in the Deep Ultraviolet with Improved Tests of Local Position Invariance Using $\frac{5.7}{10}$	7.8	76
44	Rb and Cs and	7.8	107
45	Strontium and mercury optical lattice clocks at LNE-SYRTE. , 2012, , .		0
46	Characterization of an ultra-stable optical cavity developed in the industry for space applications. , 2012, , .		0
47	Progress in atomic fountains at LNE-SYRTE. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 391-409.	3.0	240
48	Reaching the 10^{-15} accuracy range with a Hg optical lattice clock. , 2012, , .		0
49	Reaching the 10^{-15} accuracy range with a Hg optical lattice clock. , 2012, , .		0
50	The space optical clocks project: Development of high-performance transportable and breadboard optical clocks and advanced subsystems. , 2012, , .		20
51	Ultrastable silicon Fabry-Pérot cavity. Nature Photonics, 2012, 6, 638-639.	31.4	5
52	Feshbach resonances in cesium at ultralow static magnetic fields. Physical Review A, 2012, 86, .	2.5	4
53	Strontium and Mercury of Optical Lattice Clocks. , 2012, , .		0
54	Recent atomic fountain clock comparisons at LNE-SYRTE. , 2011, , .		0

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55	Optical lattice clock with neutral mercury. , 2011, , .		0
56	Quantitative evaluation of distributed cavity phase shifts to improve the accuracy of SYRTE FO2. , 2011, , .		1
57	Ultraviolet laser spectroscopy of neutral mercury in a one-dimensional optical lattice. Physical Review A, 2011, 84, .	2.5	24
58	Optical Lattice Trapping of Hg and Determination of the Magic Wavelength for the Ultraviolet	7.8	73
59	Evaluation of Doppler Shifts to Improve the Accuracy of Primary Atomic Fountain Clocks. Physical Review Letters, 2011, 106, 130801.	7.8	55
60	An ultra-stable referenced interrogation system in the deep ultraviolet for a mercury optical lattice clock. Applied Physics B: Lasers and Optics, 2010, 99, 41-46.	2.2	38
61	Measurements of the distributed cavity phase shift in the LNE-SYRTE FO2 fountain. , 2010, , .		1
62	Characterization of the distributed cavity phase shift in FO2 for improving the accuracy of SYRTE fountain clocks. , 2010, , .		1
63	Demonstration of a dual alkali Rb/Cs fountain clock. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 647-653.	3.0	55
64	Testing local Lorentz and position invariance and variation of fundamental constants by searching the derivative of the comparison frequency between a cryogenic sapphire oscillator and hydrogen maser. Physical Review D, 2010, 81, .	4.7	67
65	Towards an optical lattice clock based on mercury: Loading of a dipole trap. , 2010, , .		0
66	Sub-Doppler cooling of fermionic Hg isotopes in a magneto-optical trap. Optics Letters, 2010, 35, 3078.	3.3	27
67	Characterization of the distributed cavity phase shift in LNE-SYRTE FO2 fountain. , 2010, , .		0
68	Toward a mercury optical lattice clock: Development of a dipole lattice trap at the magic wavelength. , 2010, , .		0
69	First dual mode operation of the Cs/Rb FO2 double fountain at SYRTE. , 2009, , .		1
70	Ultrastable lasers based on vibration insensitive cavities. Physical Review A, 2009, 79, .	2.5	187
71	Toward a mercury optical lattice clock: Spectroscopy of the clock transition in fermionic isotopes. , 2009, , .		0
72	Flywheel oscillator for atomic fountain clocks using ultra-stable lasers and a fiber-based optical frequency comb. , 2009, , .		2

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73	Ultralow noise microwave generation with fiber-based optical frequency comb and application to atomic fountain clock. Applied Physics Letters, 2009, 94, .	3.3	151
74	Switching atomic fountain clock microwave interrogation signal and high-resolution phase measurements. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 1319-1326.	3.0	39
75	LNE-SYRTE CLOCK ENSEMBLE: NEW ⁸⁷ Rb HYPERFINE FREQUENCY MEASUREMENT - SPECTROSCOPY OF ¹⁹⁹ Hg AND ²⁰¹ Hg OPTICAL CLOCK TRANSITION. , 2009, , .		1
76	An optical lattice clock with spin-polarized ⁸⁷ Sr atoms. European Physical Journal D, 2008, 48, 11-17.	1.3	92
77	Latest Measurements with the LNE-SYRTE Fountain Clocks. , 2008, , .		0
78	New measurement of the rubidium hyperfine frequency using LNE-SYRTE fountain ensemble. , 2008, , .		5
79	Magneto-Optical Trap of Neutral Mercury for an Optical Lattice Clock. , 2008, , .		2
80	Ultra-stable optical cavities: Design and experiments at LNE-SYRTE. , 2008, , .		2
81	Doppler-free Spectroscopy of the S^0_1 \rightarrow P^0_1 Optical Clock Transition in Laser-Cooled Fermionic Isotopes of Neutral Mercury. Physical Review Letters, 2008		75
82	An Optical Lattice Clock with Fermionic and Bosonic Sr Atoms. , 2007, , .		0
83	Optical lattice clock with spin-polarized ⁸⁷ Sr atoms. , 2007, , .		0
84	Transmission of an Optical Carrier Frequency over a Telecommunication Fiber Link. , 2007, , .		21
85	From optical lattice clocks to the measurement of forces in the Casimir regime. Physical Review A, 2007, 75, .	2.5	58
86	Comparisons between 3 fountain clocks at LNE-SYRTE. Proceedings of SPIE, 2007, , .	0.8	1
87	Accuracy evaluation of an optical lattice clock with bosonic atoms. Optics Letters, 2007, 32, 1812.	3.3	74
88	Towards an Optical Lattice Clock Based on Neutral Mercury. Frequency Control Symposium and Exhibition, Proceedings of the IEEE International, 2007, , .	0.0	1
89	Comparisons between 3 fountain clocks at LNE-SYRTE. Frequency Control Symposium and Exhibition, Proceedings of the IEEE International, 2007, , .	0.0	4
90	Design and metrological features of microwave synthesizers for atomic fountain frequency standard. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2007, 54, 729-735.	3.0	26

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91	From Optical Lattice Clocks to the Measurement of Forces in the Casimir Regime. , 2006, , .		1
92	Long-term operation and performance of cryogenic sapphire oscillators. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2006, 53, 2386-2393.	3.0	21
93	Interference-filter-stabilized external-cavity diode lasers. Optics Communications, 2006, 266, 609-613.	2.1	181
94	Design of the cold atom PHARAO space clock and initial test results. Applied Physics B: Lasers and Optics, 2006, 84, 683-690.	2.2	95
95	Recent Experimental Tests of Special Relativity. , 2006, , 451-478.		3
96	High resolution frequency standard dissemination via optical fiber metropolitan network. Review of Scientific Instruments, 2006, 77, 064701.	1.3	140
97	Cold Atom Clock Test of Lorentz Invariance in the Matter Sector. Physical Review Letters, 2006, 96, 060801.	7.8	161
98	Comparison between frequency standards in Europe and the USA at the 10^{-15} uncertainty level. Metrologia, 2006, 43, 109-120.	1.2	194
99	BNM-SYRTE Fountains: Recent Results. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 833-836.	4.7	83
100	Advances in ^{133}Cs Fountains: Control of the Cold Collision Shift and Observation of Feshbach Resonances. AIP Conference Proceedings, 2005, , .	0.4	0
101	Long-Distance Frequency Dissemination with a Resolution of 10^{-17} . Physical Review Letters, 2005, 94, 203904.	7.8	127
102	Cold atom clocks and applications. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, S449-S468.	1.5	196
103	Design and realization of a flywheel oscillator for advanced time and frequency metrology. Review of Scientific Instruments, 2005, 76, 094704.	1.3	61
104	Improved test of Lorentz invariance in electrodynamics. Physical Review D, 2004, 70, .	4.7	89
105	BNM-SYRTE fountains: Recent results. , 2004, , .		1
106	Whispering Gallery Resonators and Tests of Lorentz Invariance. General Relativity and Gravitation, 2004, 36, 2351-2372.	2.0	72
107	Advances in atomic fountains. Comptes Rendus Physique, 2004, 5, 829-843.	0.9	68
108	New Limits on the Drift of Fundamental Constants from Laboratory Measurements. Physical Review Letters, 2004, 92, 230802.	7.8	376

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109	Ultra-stable ground frequency dissemination via optical fibres. , 2004, , .		3
110	First observation of Feshbach resonances at very low magnetic field in a. , 2004, , .		4
111	High performance flywheel source for atomic fountains and advanced metrology applications. , 2004, , .		1
112	Horloges en fontaine du BNM-SYRTE : résultats récents. European Physical Journal Special Topics, 2004, 119, 287-288.	0.2	2
113	Optical frequency standards based on the $^{199}\text{Hg}^{+}$ ion. IEEE Transactions on Instrumentation and Measurement, 2003, 52, 245-249.	4.7	7
114	Design and control of femtosecond lasers for optical clocks and the synthesis of low-noise optical and microwave signals. IEEE Journal of Selected Topics in Quantum Electronics, 2003, 9, 1072-1080.	2.9	59
115	Delivery of high-stability optical and microwave frequency standards over an optical fiber network. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 1459.	2.1	167
116	The mercury single-ion optical clock and a test of the stability of the fundamental constants. , 2003, , .		0
117	Testing the Stability of Fundamental Constants with the $^{199}\text{Hg}^{+}$ Single-Ion Optical Clock. Physical Review Letters, 2003, 90, 150802.	7.8	228
118	Search for Variations of Fundamental Constants using Atomic Fountain Clocks. Physical Review Letters, 2003, 90, 150801.	7.8	271
119	Tests of Lorentz Invariance using a Microwave Resonator. Physical Review Letters, 2003, 90, 060402.	7.8	135
120	The $^{199}\text{Hg}^{+}$ single ion optical clock: recent progress. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 545-551.	1.5	16
121	Controlling the Cold Collision Shift in High Precision Atomic Interferometry. Physical Review Letters, 2002, 89, 233004.	7.8	99
122	Cavity frequency pulling in cold atom fountains. IEEE Transactions on Instrumentation and Measurement, 2001, 50, 503-506.	4.7	31
123	Cold Atom Clocks. Physica Scripta, 2001, T95, 50.	2.5	55
124	Cold-Atom Clocks on Earth and in Space. Topics in Applied Physics, 2001, , 131-153.	0.8	20
125	Cold Collision Frequency Shifts in a ^{87}Rb Atomic Fountain. Physical Review Letters, 2000, 85, 3117-3120.	7.8	119
126	Interrogation oscillator noise rejection in the comparison of atomic fountains. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2000, 47, 1253-1255.	3.0	28

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127	High-accuracy measurement of the 87 Rb ground-state hyperfine splitting in an atomic fountain. Europhysics Letters, 1999, 45, 558-564.	2.0	142
128	Direct measurement of the ground-state dissociation energy of Na ₂ . Physical Review A, 1996, 54, R1006-R1009.	2.5	76
129	Recoil effects in microwave atomic frequency standards: preliminary results. , 0, , .		0
130	Cs and Rb fountains. , 0, , .		2
131	High performance frequency dissemination for metrology applications with optical fibers. , 0, , .		5
132	Long term operation, performance and applications of cryogenic sapphire oscillators. , 0, , .		0
133	Comparison with an uncertainty of 2×10^{-16} between two primary frequency standards. , 0, , .		0
134	Testing Lorentz Invariance Using Zeeman Transitions in Atomic Fountains. , 0, , .		0