Rodolphe Le Targat

List of Publications by Year
in descending order

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Version: 2024-02-01

51 papers	2,938 citations	218677 26 h-index	289244 40 g-index
51 all docs	51 docs citations	51 times ranked	2237 citing authors

#	Article	IF	Citations
1	Comparing ultrastable lasers at 7â€‰Ã—â€‰10â^'17 fractional frequency instability through a 2220â€‰km optical fibre network. Nature Communications, 2022, 13, 212.	12.8	27
2	An accurate and robust metrological network for coherent optical frequency dissemination. New Journal of Physics, 2021, 23, 053027.	2.9	29
3	Direct comparisons of European primary and secondary frequency standards via satellite techniques. Metrologia, 2020, 57, 045005.	1.2	20
4	Precision measurements of electric-field-induced frequency displacements of an ultranarrow optical transition in ions in a solid. Applied Physics Letters, 2020, 117, 221102.	3.3	6
5	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
6	Mechanical Tunability of an Ultranarrow Spectral Feature of a Rare-Earth-Doped Crystal via Uniaxial Stress. Physical Review Applied, 2020, 13, .	3.8	12
7	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
8	Inhomogeneous response of an ion ensemble from mechanical stress. Physical Review Research, 2020, 2, .	3.6	10
9	Universal formalism for data sharing and processing in clock comparison networks. Physical Review Research, 2020, 2, .	3.6	6
10	Double-heterodyne probing for an ultra-stable laser based on spectral hole burning in a rare-earth-doped crystal. Optics Letters, 2020, 45, 1930.	3.3	11
11	Double-Heterodyne Detection of Spectral Hole in Rare Earth Doped Crystal for Laser Frequency Stabilization and Opto-Mechanical Sensing. , 2019, , .		0
12	High-Precision Mid-Infrared Spectroscopy with a Widely Tuneable SI-Traceable Frequency-Comb-Stabilised QCL. , 2019, , .		0
13	A new experiment to test parity symmetry in cold chiral molecules using vibrational spectroscopy. Quantum Electronics, 2019, 49, 288-292.	1.0	31
14	Laser Frequency Stabilization Based on Spectral-Hole Burning Using Double-Heterodyne Detection. , 2019, , .		0
15	High-precision methanol spectroscopy with a widely tunable SI-traceable frequency-comb-based mid-infrared QCL. Optica, 2019, 6, 411.	9.3	38
16	New bounds on dark matter coupling from a global network of optical atomic clocks. Science Advances, 2018, 4, eaau4869.	10.3	96
17	First international comparison of fountain primary frequency standards via a long distance optical fiber link. Metrologia, 2017, 54, 348-354.	1.2	64
18	Test of Special Relativity Using a Fiber Network of Optical Clocks. Physical Review Letters, 2017, 118, 221102.	7.8	155

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19	A noise-immune cavity-assisted non-destructive detection for an optical lattice clock in the quantum regime. New Journal of Physics, 2017, 19, 083002.	2.9	30
20	Contributing to TAI with Sr optical lattice clocks. , 2017, , .		1
21	Dispersive heterodyne probing method for laser frequency stabilization based on spectral hole burning in rare-earth doped crystals. Optics Express, 2017, 25, 15539.	3.4	25
22	Optical to microwave clock frequency ratios with a nearly continuous strontium optical lattice clock. Metrologia, 2016, 53, 1123-1130.	1.2	74
23	Development of a strontium optical lattice clock for the SOC mission on the ISS. Proceedings of SPIE, 2016, , .	0.8	10
24	Comparing a mercury optical lattice clock with microwave and optical frequency standards. New Journal of Physics, 2016, 18, 113002.	2.9	53
25	Semi-classical dynamics of superradiant Rayleigh scattering in a Boseâ€“Einstein condensate. Journal of Modern Optics, 2016, 63, 1886-1897.	1.3	8
26	A clock network for geodesy and fundamental science. Nature Communications, 2016, 7, 12443.	12.8	297
27	Ultra-stable clock laser system development towards space applications. Scientific Reports, 2016, 6, 33973.	3.3	49
28	Toward a highly stable master laser for the interrogation of SYRTEâ€™s Sr and Hg optical lattice clocks. , 2016, , .		0
29	Polarizabilities of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Sr</mml:mi><mml:mprescripts /><mml:none /><mml:mn>87</mml:mn></mml:mmultiscripts></mml:math>clock transition. Physical Review A, 2015, 92, .	2.5	23
30	Atomic fountains and optical clocks at SYRTE: Status and perspectives. Comptes Rendus Physique, 2015, 16, 461-470.	0.9	31
31	Development of a strontium optical lattice clock for the SOC mission on the ISS. Comptes Rendus Physique, 2015, 16, .	0.9	74
32	Spectral purity transfer between optical wavelengths at the 10â^'18 level. Nature Photonics, 2014, 8, 219-223.	31.4	96
33	Toward a highly stable master laser for the interrogation of SYRTE's Sr and Hg optical lattice clocks. , 2014, , .		0
34	Experimental realization of an optical second with strontium lattice clocks. Nature Communications, 2013, 4, 2109.	12.8	192
35	Creation of quantum-degenerate gases of ytterbium in a compact 2D-/3D-magneto-optical trap setup. Review of Scientific Instruments, 2013, 84, 043109.	1.3	49
36	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

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37	Comparison of two Strontium optical lattice clocks in agreement at the 10^{−16} level. , 2012, , .		3
38	Comparison of two Strontium optical lattice clocks in agreement at the 10^{−16} level. , 2012, , .		1
39	Strontium and Mercury of Optical Lattice Clocks. , 2012, , .		0
40	Quantum Simulation of Frustrated Classical Magnetism in Triangular Optical Lattices. Science, 2011, 333, 996-999.	12.6	543
41	An optical lattice clock with spin-polarized 87Sr atoms. European Physical Journal D, 2008, 48, 11-17.	1.3	92
42	Rayleigh superradiance and dynamic Bragg gratings in an end-pumped Bose-Einstein condensate. Physical Review A, 2008, 78, .	2.5	35
43	New Limits on Coupling of Fundamental Constants to Gravity Using<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>Sr</mml:mi><mml:mprescripts /><mml:none /><mml:mn>87</mml:mn></mml:mmultiscripts></mml:math>Optical Lattice Clocks. Physical Review Letters, 2008, 100, 140801.	7.8	261
44	An Optical Lattice Clock with Fermionic and Bosonic Sr Atoms. , 2007, , .		0
45	Accuracy evaluation of an optical lattice clock with bosonic atoms. Optics Letters, 2007, 32, 1812.	3.3	74
46	Accuracy Evaluation of a $^{87}hbox{Sr}$ Optical Lattice Clock. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 336-340.	4.7	3
47	Accurate Optical Lattice Clock withSr87Atoms. Physical Review Letters, 2006, 97, 130801.	7.8	112
48	Hyperpolarizability Effects in a Sr Optical Lattice Clock. Physical Review Letters, 2006, 96, 103003.	7.8	102
49	75%-Efficiency blue generation from an intracavity PPKTP frequency doubler. Optics Communications, 2005, 247, 471-481.	2.1	82
50	On cavity modification of stimulated Raman scattering. Journal of Optics B: Quantum and Semiclassical Optics, 2003, 5, 272-278.	1.4	32
51	Parametric optics with whispering-gallery modes. , 2003, , .		4