Arnaud Landragin

List of Publications by Year
in descending order

111	6,047	66343	69250
papers	citations	42 h-index	77 g-index

117	117	117	2502
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Compact differential gravimeter at the quantum projection-noise limit. Physical Review A, 2022, 105, .	2.5	26
2	Testing the universality of free fall using correlated 39Kâ€“87Rb atom interferometers. AVS Quantum Science, 2022, 4, .	4.9	14
3	High Stability Two Axis Cold-Atom Gyroscope. , 2022, , .		0
4	Accurate measurement of the Sagnac effect for matter waves. Science Advances, 2022, 8, .	10.3	10
5	Tailoring Multiloop Atom Interferometers with Adjustable Momentum Transfer. Physical Review Letters, 2020, 125, 213201.	7.8	6
6	Prospects for fundamental physics with LISA. General Relativity and Gravitation, 2020, 52, 1.	2.0	198
7	Accurate trajectory alignment in cold-atom interferometers with separated laser beams. Physical Review A, 2020, 101, .	2.5	12
8	High-accuracy inertial measurements with cold-atom sensors. AVS Quantum Science, 2020, 2, .	4.9	94
9	A fibered laser system for the MIGA large scale atom interferometer. Scientific Reports, 2020, 10, 3268.	3.3	20
10	ELGARâ€”a European Laboratory for Gravitation and Atom-interferometric Research. Classical and Quantum Gravity, 2020, 37, 225017.	4.0	63
11	Degenerate optical resonator for the enhancement of large laser beams. Optics Express, 2020, 28, 39112.	3.4	0
12	Rotation rate measurements with a large area cold atom interferometer. , 2020, , .		0
13	Characterizing Earth gravity field fluctuations with the MIGA antenna for future gravitational wave detectors. Physical Review D, 2019, 99, .	4.7	17
14	All-Optical Bose-Einstein Condensates in Microgravity. Physical Review Letters, 2019, 123, 240402.	7.8	51
15	Improving the phase response of an atom interferometer by means of temporal pulse shaping. New Journal of Physics, 2018, 20, 023020.	2.9	18
16	Cold-Atom-Based Commercial Microwave Clock at the 10^{â^’15} Level. , 2018, , .		2
17	Interleaved atom interferometry for high-sensitivity inertial measurements. Science Advances, 2018, 4, eaau7948.	10.3	122
18	Atom interferometry with top-hat laser beams. Applied Physics Letters, 2018, 113, .	3.3	27

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19	Exploring gravity with the MIGA large scale atom interferometer. Scientific Reports, 2018, 8, 14064.	3.3	153
20	Interleaved Matter-Wave Gyroscope with 3 Ã— 10^{â^'10} rad.s^{â^'1} Stability. , 2018, , .		1
21	Gravity measurements below 10â^'9 g with a transportable absolute quantum gravimeter. Scientific Reports, 2018, 8, 12300.	3.3	206
22	Generation of high-purity low-temperature samples of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">K</mml:mi><mml:mprescripts /><mml:none /><mml:mn>39</mml:mn></mml:mmultiscripts></mml:math> for applications in metrology. Physical Review A, 2017, 96, .	2.5	10
23	A marginally stable optical resonator for enhanced atom interferometry. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 155002.	1.5	18
24	Dual matter-wave inertial sensors in weightlessness. Nature Communications, 2016, 7, 13786.	12.8	142
25	Development of compact cold-atom sensors for inertial navigation. Proceedings of SPIE, 2016, , .	0.8	24
26	MIGA: combining laser and matter wave interferometry for mass distribution monitoring and advanced geodesy. Proceedings of SPIE, 2016, , .	0.8	9
27	Low frequency gravitational wave detection with ground-based atom interferometer arrays. Physical Review D, 2016, 93, .	4.7	75
28	Continuous Cold-Atom Inertial Sensor with<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mtext>â€‰</mml:mtext><mml:mtext>â€‰</mml:mtext><mml:mi>nrad</mml:mi></mml:mrow></mml:math> Stability. Physical Review Letters, 2016, 116, 183003.	7.8	189
29	Metrology with Atom Interferometry: Inertial Sensors from Laboratory to Field Applications. Journal of Physics: Conference Series, 2016, 723, 012049.	0.4	33
30	Phase locking an atom interferometer. , 2016, , .		0
31	Cold-atom inertial sensor without deadtime. , 2016, , .		1
32	Phase Locking a Clock Oscillator to a Coherent Atomic Ensemble. Physical Review X, 2015, 5, .	8.9	39
33	Erratum to â€œThe Sagnac effect: 20 years of development in matter-wave interferometryâ€•[C. R. Physique 15 (10) (2014) 875â€“883]. Comptes Rendus Physique, 2015, 16, .	0.9	2
34	Design of a dual species atom interferometer for space. Experimental Astronomy, 2015, 39, 167-206.	3.7	48
35	Correlative methods for dual-species quantum tests of the weak equivalence principle. New Journal of Physics, 2015, 17, 085010.	2.9	44
36	Quantum tests of the Einstein Equivalence Principle with the STEâ€“QUEST space mission. Advances in Space Research, 2015, 55, 501-524.	2.6	151

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37	The matter-wave laser interferometer gravitation antenna (MIGA): New perspectives for fundamental physics and geosciences. E3S Web of Conferences, 2014, 4, 01004.	0.5	12
38	Stability enhancement by joint phase measurements in a single cold atomic fountain. Physical Review A, 2014, 90, .	2.5	25
39	Hybridizing matter-wave and classical accelerometers. Applied Physics Letters, 2014, 105, .	3.3	95
40	Effective velocity distribution in an atom gravimeter: Effect of the convolution with the response of the detection. Physical Review A, 2014, 90, .	2.5	15
41	A compact micro-wave synthesizer for transportable cold-atom interferometers. Review of Scientific Instruments, 2014, 85, 063114.	1.3	10
42	Continuous free fall acceleration determination for the LNE Watt balance. , 2014, , .		0
43	Underground operation at best sensitivity of the mobile LNE-SYRTE cold atom gravimeter. Gyroscopy and Navigation, 2014, 5, 266-274.	1.3	65
44	Feedback control of coherent spin states using weak nondestructive measurements. Physical Review A, 2014, 89, .	2.5	3
45	The Sagnac effect: 20 years of development in matter-wave interferometry. Comptes Rendus Physique, 2014, 15, 875-883.	0.9	100
46	Stability comparison of two absolute gravimeters: optical versus atomic interferometers. Metrologia, 2014, 51, L15-L17.	1.2	143
47	STE-QUESTâ€"test of the universality of free fall using cold atom interferometry. Classical and Quantum Gravity, 2014, 31, 115010.	4.0	159
48	Precision Gravity Tests with Atom Interferometry in Space. Nuclear Physics, Section B, Proceedings Supplements, 2013, 243-244, 203-217.	0.4	68
49	Feedback Control of Trapped Coherent Atomic Ensembles. Physical Review Letters, 2013, 110, 210503.	7.8	23
50	MiniAtom: Realization of an absolute compact atomic gravimeter. , 2013, , .		1
51	Robust laser frequency stabilization by serrodyne modulation. Optics Letters, 2012, 37, 1005.	3.3	25
52	The influence of transverse motion within an atomic gravimeter. New Journal of Physics, 2011, 13, 065025.	2.9	178
53	Detecting inertial effects with airborne matter-wave interferometry. Nature Communications, 2011, 2, 474.	12.8	269
54	Dual-wavelength laser source for onboard atom interferometry. Optics Letters, 2011, 36, 4128.	3.3	59

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55	Comparison of 3 Absolute Gravimeters Based on Different Methods for the e-MASS Project. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 2527-2532.	4.7	12
56	Heterodyne non-demolition measurements on cold atomic samples: towards the preparation of non-classical states for atom interferometry. New Journal of Physics, 2011, 13, 065021.	2.9	27
57	Spin-squeezing and Dicke-state preparation by heterodyne measurement. Physical Review A, 2011, 83, .	2.5	17
58	Continuous g monitoring with atom interferometry. , 2011, , .		1
59	Perturbations of the local gravity field due to mass distribution on precise measuring instruments: a numerical method applied to a cold atom gravimeter. Metrologia, 2011, 48, 299-305.	1.2	34
60	The Space Atom Interferometer project: status and prospects. Journal of Physics: Conference Series, 2011, 327, 012050.	0.4	20
61	Low noise amplification of an optically carried microwave signal: application to atom interferometry. Applied Physics B: Lasers and Optics, 2010, 101, 723-729.	2.2	8
62	A Compact Atom Interferometer for Future Space Missions. Microgravity Science and Technology, 2010, 22, 551-561.	1.4	48
63	A cold atom pyramidal gravimeter with a single laser beam. Applied Physics Letters, 2010, 96, .	3.3	106
64	Double diffraction in an atomic gravimeter. Physical Review A, 2010, 81, .	2.5	45
65	In situ characterization of an optical cavity using atomic light shift. Optics Letters, 2010, 35, 3769.	3.3	17
66	Comparison of 3 absolute gravimeters based on different methods for the e-MASS project. , 2010, , .		0
67	Comparison between two mobile absolute gravimeters: optical versus atomic interferometers. Metrologia, 2010, 47, L9-L11.	1.2	129
68	Vibration Rejection on Atomic Gravimeter Signal Using a Seismometer. International Association of Geodesy Symposia, 2010, , 115-121.	0.4	2
69	Enhancing the Area of a Raman Atom Interferometer Using a Versatile Double-Diffraction Technique. Physical Review Letters, 2009, 103, 080405.	7.8	97
70	Characterization and limits of a cold-atom Sagnac interferometer. Physical Review A, 2009, 80, .	2.5	144
71	Operating an atom interferometer beyond its linear range. Metrologia, 2009, 46, 87-94.	1.2	98
72	How to estimate the differential acceleration in a two-species atom interferometer to test the equivalence principle. New Journal of Physics, 2009, 11, 113010.	2.9	48

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73	Quantum physics exploring gravity in the outer solar system: the SAGAS project. Experimental Astronomy, 2009, 23, 651-687.	3.7	101
74	Wide bandwidth phase-locked diode laser with an intra-cavity electro-optic modulator. Optics Communications, 2009, 282, 977-980.	2.1	29
75	Light-pulse atom interferometry in microgravity. European Physical Journal D, 2009, 53, 353-357.	1.3	60
76	CHARACTERIZATION OF A COLD ATOM GYROSCOPE. , 2009, , .		0
77	Limits to the sensitivity of a low noise compact atomic gravimeter. Applied Physics B: Lasers and Optics, 2008, 92, 133-144.	2.2	232
78	Measurement of the Sensitivity Function in a Time-Domain Atomic Interferometer. IEEE Transactions on Instrumentation and Measurement, 2008, 57, 1141-1148.	4.7	169
79	Micro-gravity investigations for the LNE watt balance project. Metrologia, 2008, 45, 265-274.	1.2	74
80	Off-resonant Raman transition impact in an atom interferometer. Physical Review A, 2008, 78, .	2.5	64
81	Atom Interferometric Inertial Sensors for Space Applications. Astrophysics and Space Science Library, 2008, , 297-339.	2.7	1
82	Large-Bandwidth, Low-Noise Phase-Lock of External Cavity Diode Lasers for Atom Interferometers. , 2007, , .		0
83	From optical lattice clocks to the measurement of forces in the Casimir regime. Physical Review A, 2007, 75, .	2.5	58
84	Experimental limits of an inertial sensor based on cold atoms interferometry. , 2007, , .		0
85	Future Inertial Atomic Quantum Sensors: State of Art. , 2007, , .		0
86	Atom interferometers and optical atomic clocks: New quantum sensors for fundamental physics experiments in space. Nuclear Physics, Section B, Proceedings Supplements, 2007, 166, 159-165.	0.4	38
87	Influence of lasers propagation delay on the sensitivity of atom interferometers. European Physical Journal D, 2007, 44, 419-425.	1.3	39
88	Six-Axis Inertial Sensor Using Cold-Atom Interferometry. Physical Review Letters, 2006, 97, 010402.	7.8	279
89	From Optical Lattice Clocks to the Measurement of Forces in the Casimir Regime. , 2006, , .		1
90	Compact laser system for atom interferometry. Applied Physics B: Lasers and Optics, 2006, 84, 643-646.	2.2	66

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91	I.C.E.: a transportable atomic inertial sensor for test in microgravity. Applied Physics B: Lasers and Optics, 2006, 84, 673-681.	2.2	44
92	ATOM INTERFEROMETRY. NATO Science Series Series II, Mathematics, Physics and Chemistry, 2006, , 359-366.	0.1	1
93	Influence of optical aberrations in an atomic gyroscope. European Physical Journal D, 2005, 36, 257-260.	1.3	21
94	The BNM Watt Balance Project. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 850-853.	4.7	99
95	GravimÃ¨tre Ã atomes froids. European Physical Journal Special Topics, 2004, 119, 153-154.	0.2	5
96	Cold Atom Absolute Gravimeter for the Watt Balance. , 2004, , .		1
97	A cold atom interferometer for high precision inertial measurements. , 2004, , .		0
98	InterfÃ©romÃ¨tre Ã atomes froids : vers un gyromÃ¨tre-accÃ©lÃ©romÃ¨tre de grande sensibilitÃ©. European Physical Journal Special Topics, 2004, 119, 225-226.	0.2	4
99	COLD ATOM GYROSCOPE FOR PRECISION MEASUREMENTS. , 2004, , .		2
100	Cold strontium atoms for an optical frequency standard. IEEE Transactions on Instrumentation and Measurement, 2003, 52, 255-257.	4.7	1
101	Efficient cooling and trapping of strontium atoms. Optics Letters, 2003, 28, 468.	3.3	39
102	A cold atom interferometer for high precision measurements. , 2003, , .		0
103	Reaching the quantum noise limit in a high-sensitivity cold-atom inertial sensor. Journal of Optics B: Quantum and Semiclassical Optics, 2003, 5, S136-S142.	1.4	34
104	Rotation sensing with a dual atom-interferometer Sagnac gyroscope. Classical and Quantum Gravity, 2000, 17, 2385-2398.	4.0	367
105	A reflection grating for atoms at normal incidence. Europhysics Letters, 1997, 39, 485-490.	2.0	20
106	Specular versus diffuse reflection of atoms from an evanescent-wave mirror. Optics Letters, 1996, 21, 1591.	3.3	38
107	Measurement of the van der Waals Force in an Atomic Mirror. Physical Review Letters, 1996, 77, 1464-1467.	7.8	223
108	Observation de la force de van der Waals dans le miroir Ã atomes. Annales De Physique, 1995, 20, 641-642.	0.2	1

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109	Recoil effects in microwave atomic frequency standards: preliminary results. , 0, , .		0
110	Design of a cold atom source for a neutral strontium optical frequency standard. , 0, , .		0
111	An /sup 87/Rb cold atom interferometric gravimeter. , 0, , .		0