Serge Galliou

List of Publications by Year
in descending order

81 papers	900 citations	516561 16 h-index	526166 27 g-index
81 all docs	81 docs citations	81 times ranked	599 citing authors

#	Article	IF	Citations
1	Rare Events Detected with a Bulk Acoustic Wave High Frequency Gravitational Wave Antenna. Physical Review Letters, 2021, 127, 071102.	2.9	20
2	Measurement of the refractive index at cryogenic temperature of absorptive silver thin films used as reflectors in a Fabryâ€“Perot cavity. Applied Optics, 2021, 60, 10945.	0.9	2
3	Generation of coherent phonons via a cavity enhanced photonic lambda scheme. Applied Physics Letters, 2020, 117, .	1.5	2
4	Influence of flicker noise and nonlinearity on the frequency spectrum of spin torque nano-oscillators. Scientific Reports, 2020, 10, 13116.	1.6	4
5	Generation of ultralow power phononic combs. Physical Review Research, 2020, 2, .	1.3	13
6	Bulk Acoustic Wave Resonator-Oscillators and Tests of Fundamental Physics. , 2019, , .		0
7	Mitigation of Temperature-Induced Light-Shift Effects in Miniaturized Atomic Clocks. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 1962-1967.	1.7	16
8	Testing the generalized uncertainty principle with macroscopic mechanical oscillators and pendulums. Physical Review D, 2019, 100, .	1.6	70
9	Low offset frequency <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mi>f</mml:mi> flicker noise in spin-torque vortex oscillators. Physical Review B, 2019, 99, .	1.1	9
10	Quartz Crystal Resonator Used as an Optical Fabry-Perot Cavity. , 2019, , .		0
11	Piezo-optomechanical coupling of a 3D microwave resonator to a bulk acoustic wave crystalline resonator. Applied Physics Letters, 2019, 115, .	1.5	9
12	Observation of low-temperature magnetomechanic effects in crystalline resonant phonon cavities. Physical Review B, 2019, 100, .	1.1	2
13	Advanced microfabrication technologies for miniature caesium vapor cells for atomic clocks. , 2019, , .		0
14	Frequencyâ€“Temperature Compensated Cuts of Crystalline-Quartz Acoustic Cavity Within the Cryogenic Range [4 K, 15 K]. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 1738-1740.	1.7	2
15	Demonstration of the mass-producible feature of a Cs vapor microcell technology for miniature atomic clocks. Sensors and Actuators A: Physical, 2018, 280, 99-106.	2.0	30
16	Inducing Strong Non-Linearities in a Phonon Trapping Quartz Bulk Acoustic Wave Resonator Coupled to a Superconducting Quantum Interference Device. Applied Sciences (Switzerland), 2018, 8, 602.	1.3	1
17	Cryogenic optomechanic cavity in low mechanical loss material. Journal of Applied Physics, 2018, 124, 073104.	1.1	6
18	Towards Cryogenic Quartz Oscillators: Coupling of a Bulk Acoustic Wave quartz resonator to a SQUID. , 2016, , .		1

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19	A new method of probing mechanical losses of coatings at cryogenic temperatures. Review of Scientific Instruments, 2016, 87, 123906.	0.6	5
20	Temperature coefficients of crystalline-quartz elastic constants over the cryogenic range [4â€‰K, 15â€‰K]. Applied Physics Letters, 2016, 109, .	1.5	7
21	Impact of coatings on the quality factor of a quartz crystal resonator at liquid helium temperature. , 2016, , .		1
22	Behavior of quartz crystal resonators at liquid helium temperature. , 2016, , .		0
23	Quality Factor Measurements of Various Types of Quartz Crystal Resonators Operating Near 4ÂK. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 975-980.	1.7	12
24	Laser light routing in an elongated micromachined vapor cell with diffraction gratings for atomic clock applications. Scientific Reports, 2015, 5, 14001.	1.6	33
25	Quality factors of quartz crystal resonators operating at 4 Kelvins. , 2015, , .		0
26	Measurements of elastic properties of langatate at liquid helium temperatures for design of ultra low loss mechanical systems. Applied Physics Letters, 2014, 104, 261904.	1.5	2
27	Extremely high Q-factor mechanical modes in quartz bulk acoustic wave resonators at millikelvin temperature. , 2014, , .		2
28	Observation of the fundamental Nyquist noise limit in an ultra-high Q-factor cryogenic bulk acoustic wave cavity. Applied Physics Letters, 2014, 105, .	1.5	18
29	Jump chaotic behaviour of ultra low loss bulk acoustic wave cavities. Applied Physics Letters, 2014, 105, .	1.5	3
30	Bulk acoustic wave resonator thermal noise measurements. , 2014, , .		0
31	Properties related to Q-factors and noise of quartz resonator-based systems at 4K. , 2014, , .		3
32	Advances in development of quartz crystal oscillators at liquid helium temperatures. Cryogenics, 2013, 57, 104-112.	0.9	17
33	Quartz resonators at cryogenic temperatures: Noise and quality factor. , 2013, , .		2
34	Observation of Rayleigh Phonon Scattering through Excitation of Extremely High Overtones in Low-Loss Cryogenic Acoustic Cavities for Hybrid Quantum Systems. Physical Review Letters, 2013, 111, 085502.	2.9	49
35	Recent progress and perspectives of extremely low loss acoustic cavities: From frequency sources to artificial atoms. , 2013, , .		0
36	Computation method for the short-term stability of quartz crystal resonators obtained from passive phase noise measures. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 1530-1532.	1.7	16

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37	Extremely Low Loss Phonon-Trapping Cryogenic Acoustic Cavities for Future Physical Experiments. Scientific Reports, 2013, 3, 2132.	1.6	87
38	Extremely low-loss acoustic phonons in a quartz bulk acoustic wave resonator at millikelvin temperature. Applied Physics Letters, 2012, 100, .	1.5	73
39	Measurement of temperature sensitivity of LGT elastic coefficients over [4K, 15K] cryogenic range. , 2012, , .		0
40	Cryogenic quartz frequency sources: Problems and perspectives. , 2012, , .		0
41	A high-performance frequency stability compact CPT clock based on a Cs-Ne microcell. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 2584-2587.	1.7	7
42	Characterization of compact CPT clocks based on a Cs-Ne microcell. , 2012, , .		0
43	Some future applications of cryogenic high-Q resonant cavities. , 2012, , .		0
44	Estimation of the uncertainty for a phase noise optoelectronic metrology system. Physica Scripta, 2012, T149, 014025.	1.2	25
45	Quartz resonator instabilities under cryogenic conditions. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 21-29.	1.7	20
46	Thermal management of fully LTCC-packaged Cs vapour cell for MEMS atomic clock. Sensors and Actuators A: Physical, 2012, 174, 58-68.	2.0	13
47	Precision close-to-carrier phase noise simulation of BAW oscillators. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 6-9.	1.7	8
48	Oscillator frequency stability improvement by means of negative feedback. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 2297-2304.	1.7	2
49	Microfabrication and thermal behavior of miniature cesium-vapor cells for atomic clock operations. , 2011, , .		2
50	Parametric model of the BAW resonator phase-noise. Ultrasonics, 2011, 51, 966-973.	2.1	4
51	Dark line resonances in Cs-Ne vapor microcells for chip scale atomic clocks. , 2011, , .		0
52	Losses in high quality quartz crystal resonators at cryogenic temperatures. Applied Physics Letters, 2011, 98, .	1.5	43
53	Recent investigations on BAW resonators at cryogenic temperatures. , 2011, , .		14
54	Coherent population trapping resonances in Csâ€“Ne vapor microcells for miniature clocks applications. Journal of Applied Physics, 2011, 109, 014912.	1.1	49

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55	Cryogenic transistor measurement and modeling for engineering applications. Cryogenics, 2010, 50, 381-389.	0.9	17
56	The effect of power-drive level on the calibration of the bridge instrument for the measurement of the quartz stability. , 2009, , .		5
57	About Quartz Crystal Resonator Noise: Recent Study. , 2009, , .		8
58	Measurements of ultra-stable langatate crystal oscillators. , 2009, , .		2
59	Development of a 10 MHz Oscillator Working with an LGT Crystal Resonator: Preliminary Results. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 1913-1920.	1.7	6
60	Investigations on LGS and LGT crystals to realize BAW resonators. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 2384-2391.	1.7	10
61	Quartz crystal resonators exhibiting extremely high Q-factors at cryogenic temperatures. Electronics Letters, 2008, 44, 889.	0.5	13
62	Ultra-stable crystal ovens and simple characterisation. Electronics Letters, 2007, 43, 900.	0.5	14
63	Noise measurements of 10 MHz LGT crystal Oscillators. Frequency Control Symposium and Exhibition, Proceedings of the IEEE International, 2007, , .	0.0	4
64	Investigations on 10 MHz LGS and LGT crystal resonators. Frequency Control Symposium and Exhibition, Proceedings of the IEEE International, 2007, , .	0.0	6
65	A New Generation of Very High Stability BVA Oscillators. Frequency Control Symposium and Exhibition, Proceedings of the IEEE International, 2007, , .	0.0	10
66	Advanced bridge instrument for the measurement of the phase noise and of the short-term frequency stability of ultra-stable quartz resonators. Frequency Control Symposium and Exhibition, Proceedings of the IEEE International, 2007, , .	0.0	11
67	A Program to Analyse the Origin of Noise in Ultra-Stable Quartz Crystal Resonators. Frequency Control Symposium and Exhibition, Proceedings of the IEEE International, 2007, , .	0.0	7
68	Thermal characterization of crystal ovens used in phase noise measurement system. , 2006, , .		6
69	Predicting phase noise in crystal oscillators. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2005, 52, 27-30.	1.7	16
70	High-precision temperature stabilization for sapphire resonators in microwave oscillators. Review of Scientific Instruments, 2005, 76, 095110.	0.6	16
71	Phase noise resonator measurement bench using DDS as excitation source. , 2004, , .		0
72	Phase correction of reference frequency signals transmitted by optical fiber link. , 2004, , .		0

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73	Simple analysis of direct digital synthesiser phase spectrum. Electronics Letters, 2004, 40, 1469.	0.5	0
74	New phase-noise model for crystal oscillators: application to the Clapp oscillator. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2003, 50, 1422-1428.	1.7	13
75	A parametric quartz crystal oscillator. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2003, 50, 1656-1661.	1.7	15
76	Electro-thermal simulation of an ultra stable quartz oscillator. International Journal of Thermal Sciences, 2002, 41, 173-181.	2.6	2
77	Temperature processing of an ultra stable quartz oscillator. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2001, 48, 1539-1546.	1.7	6
78	A new type of infrared-sensitive resonator used as a thermal sensor. Sensors and Actuators A: Physical, 1998, 65, 147-151.	2.0	7
79	Quartz resonators thermal modelization using located constants networks. Revue De Physique AppliquÃ©e, 1987, 22, 235-240.	0.4	0
80	Frequency overshoot in quartz crystal oscillators during the warm-up time. Application to the BVA resonator. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1983, 2, 1163-1174.	0.4	1
81	Low noise parametric quartz crystal oscillator. , 0, , .		1