Albert Schliesser

List of Publications by Year
in descending order

120 papers	11,231 citations	87843 38 h-index	128225 60 g-index
124 all docs	124 docs citations	124 times ranked	7209 citing authors

#	Article	IF	Citations
1	Strong Parametric Coupling between Two Ultracoherent Membrane Modes. Physical Review Letters, 2022, 128, 094301.	2.9	10
2	Ground state cooling of an ultracoherent electromechanical system. Nature Communications, 2022, 13, 1507.	5.8	21
3	Optically cooling a room-temperature nanomechanical membrane resonator close to its quantum ground state. , 2022, , .		0
4	Entanglement between distant macroscopic mechanical and spin systems. Nature Physics, 2021, 17, 228-233.	6.5	71
5	Towards Quantum Measurement and Control of a Nanomechanical Resonator at Room Temperature. , 2021, , .		0
6	Membrane-Based Scanning Force Microscopy. Physical Review Applied, 2021, 15, .	1.5	38
7	Gravitational wave detectors with broadband high frequency sensitivity. Communications Physics, 2021, 4, .	2.0	26
8	Modeling and Observation of Nonlinear Damping in Dissipation-Diluted Nanomechanical Resonators. Physical Review Letters, 2021, 126, 174101.	2.9	13
9	Assembly of opto-mechanical devices. , 2021, , .		0
10	Cooling a nanomechanical membrane resonator from room temperature close to the quantum ground state. , 2021, , .		0
11	Soft-Clamped Phononic Dimers for Mechanical Sensing and Transduction. Physical Review Applied, 2020, 14, .	1.5	19
12	Experimental Assessment of Entropy Production in a Continuously Measured Mechanical Resonator. Physical Review Letters, 2020, 125, 080601.	2.9	25
13	Entanglement of propagating optical modes via a mechanical interface. Nature Communications, 2020, 11, 943.	5.8	53
14	Figures of merit for quantum transducers. Quantum Science and Technology, 2020, 5, 034009.	2.6	30
15	Stroboscopic quantum optomechanics. Physical Review Research, 2020, 2, .	1.3	14
16	Mechanically Mediated Entanglement of Propagating Optical Modes. , 2020, , .		0
17	Observing and Verifying the Quantum Trajectory of a Mechanical Resonator. Physical Review Letters, 2019, 123, 163601.	2.9	57
18	Counting grains of sound. Nature, 2019, 571, 480-481.	13.7	0

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19	Continuous force and displacement measurement below the standard quantum limit. Nature Physics, 2019, 15, 745-749.	6.5	137
20	Quantum Measurement of a Mechanical Resonator at and Below the Standard Quantum Limit. , 2019, , .		0
21	Magnetic resonance imaging with optical preamplification and detection. Scientific Reports, 2019, 9, 18173.	1.6	13
22	Sensitive optomechanical transduction of electric and magnetic signals to the optical domain. Optics Express, 2019, 27, 18561.	1.7	13
23	Quantum Measurement and Control of a Mechanical Resonator. , 2019, , .		1
24	Measuring Motion Below the Standard Quantum Limit by Strong Optomechanical Quantum Correlations. , 2019, , .		0
25	Quantum Measurement of a Mechanical Resonator At and Below the Standard Quantum Limit. , 2019, , .		0
26	Measuring and Imaging Nanomechanical Motion with Laser Light. , 2018, , 71-85.		2
27	Nano-opto-electro-mechanical systems. Nature Nanotechnology, 2018, 13, 11-18.	15.6	208
28	Carrier-mediated optomechanical forces in semiconductor nanomembranes with coupled quantum wells. Physical Review B, 2018, 98, .	1.1	6
29	Electrooptomechanical Equivalent Circuits for Quantum Transduction. Physical Review Applied, 2018, 10, .	1.5	11
30	Measurement-based quantum control of mechanical motion. Nature, 2018, 563, 53-58.	13.7	263
31	Polarimetric analysis of stress anisotropy in nanomechanical silicon nitride resonators. Applied Physics Letters, 2017, 110, .	1.5	13
32	Ultracoherent nanomechanical resonators via soft clamping and dissipation dilution. Nature Nanotechnology, 2017, 12, 776-783.	15.6	293
33	Multimode optomechanical system in the quantum regime. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 62-66.	3.3	89
34	Measuring and imaging nanomechanical motion with laser light. Applied Physics B: Lasers and Optics, 2017, 123, 8.	1.1	16
35	Quantum back-action-evading measurement of motion in a negative mass reference frame. Nature, 2017, 547, 191-195.	13.7	153
36	Multimode quantum optomechanics with ultra-coherent nanomechanical resonators. , 2017, , .		0

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37	Quantum Back Action Evading Measurements in a Spin-Mechanics Hybrid System. , 2017, , .		0
38	Multimode Quantum Optomechanics with Ultra-coherent Nanomechanical Resonators. , 2017, , .		0
39	On-chip RF-to-optical transducer (Conference Presentation). , 2016, , .		0
40	â€œQuantumâ€•Mechanical Systems: bridging foundations and applications. Annalen Der Physik, 2015, 527, A13-A14.	0.9	1
41	Demonstration of suppressed phonon tunneling losses in phononic bandgap shielded membrane resonators for high-Q optomechanics. Optics Express, 2014, 22, 6810.	1.7	49
42	Cavity Optomechanics with Whispering-Gallery-Mode Microresonators. , 2014, , 121-148.		6
43	Optical detection of radio waves through a nanomechanical transducer. Nature, 2014, 507, 81-85.	13.7	382
44	Determination of effective mechanical properties of a double-layer beam by means of a nano-electromechanical transducer. Applied Physics Letters, 2014, 105, .	1.5	13
45	Cavity quantum optomechanics: Coupling light and micromechanical oscillators. , 2014, , .		2
46	Mid-Infrared Frequency Combs for Direct Molecular Spectroscopy. , 2014, , .		0
47	Optical Detection of Radio Waves Through a Nanomechanical Transducer. , 2014, , .		3
48	Evanescent straight tapered-fiber coupling of ultra-high Q optomechanical micro-resonators in a low-vibration helium-4 exchange-gas cryostat. Review of Scientific Instruments, 2013, 84, 043108.	0.6	18
49	Phase noise measurement of external cavity diode lasers and implications for optomechanical sideband cooling of GHz mechanical modes. New Journal of Physics, 2013, 15, 015019.	1.2	23
50	Mid-infrared optical frequency combs at 2.5â€‰Î¼m based on crystalline microresonators. Nature Communications, 2013, 4, 1345.	5.8	250
51	Slowing, advancing and switching of microwave signals using circuit nanoelectromechanics. Nature Physics, 2013, 9, 179-184.	6.5	150
52	Optical readout of coupling between a nanomembrane and an LC circuit at room temperature. , 2013, , .		0
53	Low phase-noise mid-infrared frequency combs based on microresonators. , 2013, , .		0
54	Generation of Low Phase-noise Mid-Infrared Optical Frequency Combs from Crystalline Microresonators. , 2012, , .		0

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55	Dual-mode temperature compensation technique for laser stabilization to a crystalline whispering gallery mode resonator. Optics Express, 2012, 20, 19185.	1.7	45
56	Electromechanically induced absorption in a circuit nano-electromechanical system. New Journal of Physics, 2012, 14, 123037.	1.2	60
57	Quantum-coherent coupling of a mechanical oscillator to an optical cavity mode. Nature, 2012, 482, 63-67.	13.7	747
58	Mid-infrared frequency combs. Nature Photonics, 2012, 6, 440-449.	15.6	1,135
59	Dynamical photothermal response of optical whispering-gallery silica microresonators in helium-4 cryogenic environments. , 2012, , .		0
60	Thermal-noise-limited crystalline whispering-gallery-mode resonator for laser stabilization. Physical Review A, 2011, 84, .	1.0	87
61	Cooling of a Micromechanical Oscillator into the Quantum Regime. , 2011, , .		0
62	Cavity optomechanics: Cooling of a micromechanical oscillator into the quantum regime. , 2011, , .		0
63	Optomechanical sideband cooling of a micromechanical oscillator close to the quantum ground state. Physical Review A, 2011, 83, .	1.0	148
64	Mid-infrared frequency combs based on microresonators. , 2011, , .		0
65	Optomechanically induced transparency. , 2011, , .		0
66	Mid-Infrared Frequency Combs Based on Microresonators. , 2011, , .		5
67	Optomechanically Induced Transparency. , 2011, , .		4
68	Mid-Infrared Frequency Combs Based on Microresonators. , 2011, , .		0
69	Frequency Comb Generation in Crystalline MgF2 Whispering-Gallery Mode Resonators. , 2011, , .		1
70	Laser cooling of a microresonator and Optomechanically Induced Transparency. , 2011, , .		0
71	Intermediate Infrared Raman Lasing and Four-Wave Mixing in Crystalline Whispering Gallery Mode Resonators. , 2010, , .		0
72	Optomechanically Induced Transparency. Science, 2010, 330, 1520-1523.	6.0	1,350

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73	Determination of the vacuum optomechanical coupling rate using frequency noise calibration. Optics Express, 2010, 18, 23236.	1.7	137
74	Cavity optomechanics with ultrahigh-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Q</mml:mi></mml:mrow></mml:math>crystalline microresonators. Physical Review A, 2010, 82, .	1.0	88
75	Cavity Optomechanics with Whispering-Gallery Mode Optical Micro-Resonators. Advances in Atomic, Molecular and Optical Physics, 2010, 58, 207-323.	2.3	84
76	Ultra-high Q Crystalline Microresonators for Cavity Optomechanics. , 2010, , .		0
77	Cavity-Optomechanics with Microresonators at Helium-3 Temperatures. , 2010, , .		1
78	Optical Response of Silica Microcavities in Gaseous and Superfluid Helium-4. , 2010, , .		0
79	Cryogenic properties of optomechanical silica microcavities. Physical Review A, 2009, 80, .	1.0	61
80	Cavity optomechanics: Cooling of a micromechanical oscillator close to the quantum limit. , 2009, , .		0
81	Cooling and measurement of a micromechanical oscillator close to the quantum limit. , 2009, , .		1
82	Ultralow dissipation optomechanical resonators on a chip. , 2009, , .		0
83	Cryogenic properties of optomechanical silica microcavities. , 2009, , .		0
84	Resolved-sideband cooling and position measurement of a micromechanical oscillator close to the Heisenberg uncertainty limit. Nature Physics, 2009, 5, 509-514.	6.5	383
85	Near-field cavity optomechanics with nanomechanical oscillators. Nature Physics, 2009, 5, 909-914.	6.5	430
86	Optical Frequency Comb Generation in Monolithic Microresonators. Optical Science and Engineering, 2009, , 483-506.	0.1	5
87	Cryogenic properties of optomechanical silica microcavities. , 2009, , .		1
88	Cavity Optomechanics with Crystalline Whispering Gallery Mode Resonators. , 2009, , .		1
89	Controlling Light Propagation via Radiation Pressure Optomechanical Coupling. , 2009, , .		1
90	Cavity Optomechanics at the Micro- and Nanoscale. , 2009, , .		0

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91	Ultralow Dissipation Optomechanical Resonators on a Chip. , 2009, , .		0
92	A chip-scale microwave repetition rate frequency comb. , 2009, , .		0
93	Cavity-Nano-Optomechanics Using Optical Gradient Fields. , 2009, , .		0
94	Ultralow-dissipation optomechanical resonators on a chip. Nature Photonics, 2008, 2, 627-633.	15.6	159
95	Resolved-sideband cooling of a micromechanical oscillator. Nature Physics, 2008, 4, 415-419.	6.5	533
96	Antenna-mediated back-scattering efficiency in infrared near-field microscopy. Optics Express, 2008, 16, 11203.	1.7	42
97	Full Stabilization of a Microresonator-Based Optical Frequency Comb. Physical Review Letters, 2008, 101, 053903.	2.9	204
98	High-sensitivity monitoring of micromechanical vibration using optical whispering gallery mode resonators. New Journal of Physics, 2008, 10, 095015.	1.2	123
99	Resolved-sideband laser cooling of a micro-mechanical oscillator. , 2008, , .		0
100	Cryogenic optomechanics with microtoroids. , 2008, , .		0
101	Direct Stabilization of a Microresonator Frequency Comb at Microwave Frequencies. , 2008, , .		0
102	Mechanical dissipation in optical microresonators. , 2008, , .		0
103	Full stabilization of a frequency comb generated in a monolithic microcavity. , 2008, , .		2
104	Optical Vernier Spectrometer Broad band, highre solution, highsensitivi t y. , 2007, , .		0
105	Kerr Nonlinearity induced Optical Frequency Comb Generation in Microcavities. , 2007, , .		0
106	Harmonic-frequency-comb spectroscopy in the mid infrared and THz regions. , 2007, , .		0
107	Radiation Pressure Cooling of a Micromechanical Oscillator Using Dynamical Backaction. , 2007, , .		0
108	Radiation-pressure-driven vibrational modes in ultrahigh-Q silica microspheres. Optics Letters, 2007, 32, 2200.	1.7	63

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109	Frequency Comb Vernier Spectroscopy for Broadband, High-Resolution, High-Sensitivity Absorption and Dispersion Spectra. Physical Review Letters, 2007, 99, 263902.	2.9	157
110	Optical frequency comb generation from a monolithic microresonator. Nature, 2007, 450, 1214-1217.	13.7	1,686
111	Cooling of a Micro-Mechanical Oscillator Using Radiation Pressure Induced Dynamical Back-Action. , 2007, , .		1
112	Cooling of a Micro-Mechanical Oscillator Using Radiation-Pressure Induced Dynamical Backaction. , 2007, , .		0
113	Radiation-Pressure Cooling of a Micro-Mechanical Oscillator Using Dynamical Backaction. , 2007, , .		0
114	Radiation Pressure Cooling of a Micromechanical Oscillator Using Dynamical Backaction. Physical Review Letters, 2006, 97, 243905.	2.9	503
115	Complete characterization of a broadband high-finesse cavity using an optical frequency comb. Optics Express, 2006, 14, 5975.	1.7	51
116	Spectroscopic near-field microscopy using frequency combs in the mid-infrared. Optics Express, 2006, 14, 11222.	1.7	68
117	Spectroscopic s-SNOM powered by infrared frequency-combs. , 2006, , .		0
118	Wide-field prime-focus imaging atmospheric Cherenkov telescopes: A systematic study. Astroparticle Physics, 2005, 24, 382-390.	1.9	34
119	Frequency-comb infrared spectrometer for rapid, remote chemical sensing. Optics Express, 2005, 13, 9029.	1.7	337
120	Rapid, remote sensing with a coherent-comb infrared spectrometer. , 0, , .		0