Michael Gorodetsky

List of Publications by Year
in descending order

136	19,522	24978	45213
papers	citations	57 h-index	90 g-index

139	139	139	10312
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2020, 23, 3.	8.2	447
2	Thermorefractive noise in silicon-nitride microresonators. Physical Review A, 2019, 99, .	1.0	74
3	Electrically pumped photonic integrated soliton microcomb. Nature Communications, 2019, 10, 680.	5.8	160
4	Generation of frequency combs and dissipative solitons in integrated microresonators in self-injection locking regime. EPJ Web of Conferences, 2019, 220, 03001.	0.1	0
5	Integrated Self-Injection Locked Soliton Microcomb Source. , 2019, , .		0
6	Spectral Purification of Microwave Signals with Disciplined Dissipative Kerr Solitons. Physical Review Letters, 2019, 122, 013902.	2.9	58
7	Electrically driven photonic integrated soliton microcomb. , 2019, , .		3
8	Electrically Driven Ultra-compact Photonic Integrated Soliton Microcomb. , 2019, , .		0
9	Thermo-refractive noise in silicon nitride microresonators. , 2019, , .		1
10	Multiplexing soliton-combs in optical microresonators. , 2019, , .		0
11	Spectrum collapse, narrow lines, and soliton combs with multi-frequency laser diodes locked to optical microresonators. , 2019, , .		0
12	Experimental observation of above billion quality factor in silicon crystalline optical whispering gallery mode resonators. , 2019, , .		0
13	Spectrum Collapse and Kerr Frequency Comb Generation with Multi-Frequency Laser Diodes Self-Injection Locked to High-Q Optical Microresonator. , 2019, , .		0
14	Narrow linewidth diode laser self-injection locked to a high-Q microresonator. AIP Conference Proceedings, 2018, , .	0.3	4
15	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2018, 21, 3.	8.2	808
16	From the Lugiatoâ€“Lefever equation to microresonator-based soliton Kerr frequency combs. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20180113.	1.6	76
17	Semi-analytical model for a slab one-dimensional photonic crystal. AIP Conference Proceedings, 2018, , .	0.3	1
18	Spatial multiplexing of soliton microcombs. Nature Photonics, 2018, 12, 699-705.	15.6	100

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19	Narrow-linewidth lasing and soliton Kerr microcombs with ordinary laser diodes. Nature Photonics, 2018, 12, 694-698.	15.6	146
20	Highly efficient coupling of crystalline microresonators to integrated photonic waveguides. Optics Letters, 2018, 43, 2106.	1.7	20
21	Two-dimensional nonlinear modes and frequency combs in bottle microresonators. Optics Letters, 2018, 43, 2680.	1.7	13
22	Efficient coupling of ultra-high Q crystalline microresonators to integrated photonic waveguides. , 2018, , .		0
23	Theory of self-injection locking of a laser diode to a whispering gallery mode microresonator. , 2018, , .		0
24	Spatially-Multiplexed Solitons in Optical Microresonators. , 2018, , .		0
25	Generation of soliton combs with multi-frequency diode laser self-injection locked to a microresonator. , 2018, , .		0
26	Dissipative Kerr solitons in optical microresonators. Science, 2018, 361, .	6.0	1,069
27	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1.		2
28	Spectrum collapse, narrow linewidth, and Bogatov effect in diode lasers locked to high-Q optical microresonators. Optics Express, 2018, 26, 30509.	1.7	74
29	Billion Q-factor in silicon WGM resonators. Optica, 2018, 5, 1525.	4.8	59
30	Kerr soliton combs in crystalline microresonator with a regular multi-frequency diode lasers. , 2018, , .		0
31	Exploring the sensitivity of next generation gravitational wave detectors. Classical and Quantum Gravity, 2017, 34, 044001.	1.5	735
32	Dissipative Kerr solitons and Cherenkov radiation in optical microresonators with third-order dispersion. Physical Review A, 2017, 95, .	1.0	41
33	The basic physics of the binary black hole merger GW150914. Annalen Der Physik, 2017, 529, 1600209.	0.9	69
34	Breathing dissipative solitons in optical microresonators. Nature Communications, 2017, 8, 736.	5.8	139
35	Optimisation of the prism coupling of optical whispering-gallery-mode microcavities. Quantum Electronics, 2017, 47, 743-747.	0.3	7
36	Search for Gravitational Waves Associated with Gamma-Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B. Astrophysical Journal, 2017, 841, 89.	1.6	52

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37	Dynamics of platicons due to third-order dispersion. European Physical Journal D, 2017, 71, 1.	0.6	32
38	Universal dynamics and deterministic switching ofÂdissipative Kerr solitons in optical microresonators. Nature Physics, 2017, 13, 94-102.	6.5	331
39	Self-injection locking of a laser diode to a high-Q WGM microresonator. Optics Express, 2017, 25, 28167.	1.7	164
40	Raman-Kerr frequency combs in microresonators with normal dispersion. Optics Express, 2017, 25, 31148.	1.7	36
41	High-contrast Kerr frequency combs. Optica, 2017, 4, 434.	4.8	23
42	Soliton dual frequency combs in crystalline microresonators. Optics Letters, 2017, 42, 514.	1.7	81
43	Nonlinear properties of high-Q optical microresonators in normal dispersion range. EPJ Web of Conferences, 2017, 161, 02025.	0.1	0
44	Universal dynamics and deterministic switching of dissipative Kerr solitons in optical microresonators. , 2017, , .		1
45	Kerr combs in microresonators: From chaos to solitons. , 2016, , .		0
46	Harmonization of chaos into a soliton in Kerr frequency combs. Optics Express, 2016, 24, 27382.	1.7	48
47	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. Classical and Quantum Gravity, 2016, 33, 134001.	1.5	225
48	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. Living Reviews in Relativity, 2016, 19, 1.	8.2	427
49	Mid-infrared ultra-high-Q resonators based on fluoride crystalline materials. Nature Communications, 2016, 7, 13383.	5.8	60
50	Dissipative Kerr combs in microresonators: From chaos to solitons. , 2016, , .		0
51	Photonic chipâ€“based optical frequency comb using soliton Cherenkov radiation. Science, 2016, 351, 357-360.	6.0	613
52	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. , 2016, 19, 1.		1
53	Universal Dynamics and Controlled Switching of Dissipative Kerr Solitons in Optical Microresonators. , 2016, , .		2
54	Mid-infrared ultra high Q factors in fluoride crystalline microresonators. , 2016, , .		0

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55	Viscosity noise in mirrors of gravitational wave detectors. , 2016, , .		0
56	Spontaneous crystallization noise in mirrors of gravitational wave detectors. Physical Review D, 2015, 92, .	1.6	3
57	Generation of platicons and frequency combs in optical microresonators with normal GVD by modulated pump. Europhysics Letters, 2015, 112, 54008.	0.7	57
58	Photonic chip broadband frequency comb for coherent telecommunication. , 2015, , .		0
59	Modeling the whispering gallery microresonator-based optical modulator. Applied Optics, 2015, 54, 10460.	2.1	12
60	Photonic chip broadband frequency comb for coherent telecommunication. , 2015, , .		0
61	The effect of an absorbed layer on the resonant frequencies and Q-factors of spherical microresonators. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo) Tj ETQq1 1 0.784314 rgBT /Overlock		
62	Advanced LIGO. Classical and Quantum Gravity, 2015, 32, 074001.	1.5	1,929
63	Frequency combs and platicons in optical microresonators with normal GVD. Optics Express, 2015, 23, 7713.	1.7	146
64	Photonic Chip Based Optical Frequency Comb Using Soliton Induced Cherenkov Radiation. , 2015, , .		0
65	Photonic Chip Based Optical Frequency Comb Using Soliton Induced Cherenkov Radiation. , 2015, , .		0
66	Photonic Chip Based Optical Frequency Comb Using Soliton Induced Cherenkov Radiation. , 2015, , .		8
67	Broadband Frequency Combs on a Photonic Chip Using Soliton Induced Cherenkov Radiation. , 2015, , .		0
68	Temporal solitons in optical microresonators. Nature Photonics, 2014, 8, 145-152.	15.6	1,430
69	Mode Structure and Temporal Solitons in Optical Microresonators. , 2014, , .		0
70	Mode Spectrum and Temporal Soliton Formation in Optical Microresonators. Physical Review Letters, 2014, 113, 123901.	2.9	231
71	Electro-optical interaction in whispering gallery mode resonators for radio-to-optical frequency modulators. Bulletin of the Russian Academy of Sciences: Physics, 2013, 77, 1432-1435.	0.1	2
72	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

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73	Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light. Nature Photonics, 2013, 7, 613-619.	15.6	825
74	Analytical estimates of eigenfrequencies, dispersion, and field distribution in whispering gallery resonators. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 3056.	0.9	39
75	Spectral broadening of microresonator based frequency combs for self-referencing. , 2013, , .		0
76	Soliton mode-locking in optical microresonators. , 2013, , .		3
77	IMPLICATIONS FOR THE ORIGIN OF GRB 051103 FROM LIGO OBSERVATIONS. Astrophysical Journal, 2012, 755, 2.	1.6	60
78	Universal formation dynamics and noise of Kerr-frequency combs in microresonators. Nature Photonics, 2012, 6, 480-487.	15.6	521
79	Accurate analytical estimates of eigenfrequencies and dispersion in whispering-gallery spheroidal resonators. Proceedings of SPIE, 2012, , .	0.8	12
80	Universal Dynamics of Kerr-Frequency Comb Formation in Microresonators. , 2012, , .		5
81	Octave Spanning Tunable Frequency Comb from a Microresonator. Physical Review Letters, 2011, 107, 063901.	2.9	289
82	Thermal noise and coating optimization in multilayer dielectric mirrors. Physical Review D, 2011, 84, .	1.6	22
83	Measuring nanomechanical motion with an imprecision below that at the standard quantum limit. , 2011, , .		0
84	SEARCH FOR GRAVITATIONAL-WAVE BURSTS ASSOCIATED WITH GAMMA-RAY BURSTS USING DATA FROM LIGO SCIENCE RUN 5 AND VIRGO SCIENCE RUN 1. Astrophysical Journal, 2010, 715, 1438-1452.	1.6	60
85	FIRST SEARCH FOR GRAVITATIONAL WAVES FROM THE YOUNGEST KNOWN NEUTRON STAR. Astrophysical Journal, 2010, 722, 1504-1513.	1.6	104
86	Optical Measurement of Nanomechanical Motion with an Imprecision at the Standard Quantum Limit. , 2010, , .		0
87	SEARCHES FOR GRAVITATIONAL WAVES FROM KNOWN PULSARS WITH SCIENCE RUN 5 LIGO DATA. Astrophysical Journal, 2010, 713, 671-685.	1.6	155
88	Determination of the vacuum optomechanical coupling rate using frequency noise calibration. Optics Express, 2010, 18, 23236.	1.7	137
89	Measuring nanomechanical motion with an imprecision below the standard quantum limit. Physical Review A, 2010, 82, .	1.0	131
90	Predictions for the rates of compact binary coalescences observable by ground-based gravitational-wave detectors. Classical and Quantum Gravity, 2010, 27, 173001.	1.5	956

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91	An upper limit on the stochastic gravitational-wave background of cosmological origin. Nature, 2009, 460, 990-994.	13.7	303
92	Frequency comb assisted diode laser spectroscopy for measurement of microcavity dispersion. Nature Photonics, 2009, 3, 529-533.	15.6	231
93	Search for gravitational-wave bursts in the first year of the fifth LIGO science run. Physical Review D, 2009, 80, .	1.6	79
94	LIGO: the Laser Interferometer Gravitational-Wave Observatory. Reports on Progress in Physics, 2009, 72, 076901.	8.1	971
95	Einstein@Home search for periodic gravitational waves in early S5 LIGO data. Physical Review D, 2009, 80, .	1.6	78
96	First LIGO search for gravitational wave bursts from cosmic (super)strings. Physical Review D, 2009, 80, .	1.6	45
97	Search for gravitational waves from low mass compact binary coalescence in 186 days of LIGOâ€™s fifth science run. Physical Review D, 2009, 80, .	1.6	105
98	Search for gravitational waves from low mass binary coalescences in the first year of LIGOâ€™s S5 data. Physical Review D, 2009, 79, .	1.6	120
99	Search for gravitational wave ringdowns from perturbed black holes in LIGO S4 data. Physical Review D, 2009, 80, .	1.6	38
100	Search for high frequency gravitational-wave bursts in the first calendar year of LIGOâ€™s fifth science run. Physical Review D, 2009, 80, .	1.6	32
101	STACKED SEARCH FOR GRAVITATIONAL WAVES FROM THE 2006 SGR 1900+14 STORM. Astrophysical Journal, 2009, 701, L68-L74.	1.6	45
102	Atomic interferometry in high-Q toroidal microwave cavity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 5246-5249.	0.9	2
103	Thermal noises and noise compensation in high-reflection multilayer coating. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6813-6822.	0.9	41
104	<title>Whispering gallery modes in axisymmetric resonators</title>. , 2008, , .		0
105	Eigenfrequencies andQfactor in the geometrical theory of whispering-gallery modes. Quantum Electronics, 2007, 37, 167-172.	0.3	18
106	Geometric optics of whispering gallery modes. , 2006, , .		0
107	Geometrical theory of whispering-gallery modes. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 33-39.	1.9	118
108	Spheroidal microresonators for the optoelectronics. , 2005, 5948, 392.		1

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109	Nonstationary nonlinear effects in optical microspheres. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 459.	0.9	104
110	Quantum bit detector. JETP Letters, 2004, 79, 441-444.	0.4	2
111	Fundamental thermal fluctuations in microspheres. Journal of the Optical Society of America B: Optical Physics, 2004, 21, 697.	0.9	161
112	Nonstationary nonlinear effects in optical microspheres. , 2004, 5333, 231.		4
113	Noise in gravitational-wave detectors and other classical-force measurements is not influenced by test-mass quantization. Physical Review D, 2003, 67, .	1.6	62
114	The measurement of thermo-refractive noise in microspheres. , 2003, , .		1
115	Microtorus:â€ƒa high-finesse microcavity with whispering-gallery modes. Optics Letters, 2001, 26, 256.	1.7	102
116	<title>Thermorefractive noise in microspheres</title>. , 2001, 4270, 147.		2
117	Thermo-refractive noise in gravitational wave antennae. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 271, 303-307.	0.9	107
118	Dual-resonator speed meter for a free test mass. Physical Review D, 2000, 61, .	1.6	95
119	Rayleigh scattering in high-Q microspheres. Journal of the Optical Society of America B: Optical Physics, 2000, 17, 1051.	0.9	424
120	Thermodynamical fluctuations and photo-thermal shot noise in gravitational wave antennae. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 264, 1-10.	0.9	221
121	Optical microsphere resonators: optimal coupling to high-Q whispering-gallery modes. Journal of the Optical Society of America B: Optical Physics, 1999, 16, 147.	0.9	461
122	Intracavity Rayleigh scattering in microspheres: limits imposed on quality factor and mode coupling. , 1999, 3611, 206.		0
123	Energy dissipation of mechanical oscillators induced by an electric field applied to the surface of an oscillating body. Technical Physics Letters, 1998, 24, 510-512.	0.2	0
124	Narrow-line-width diode laser with a high-Q microsphere resonator. Optics Communications, 1998, 158, 305-312.	1.0	161
125	Quantum limits and symphotonic states in free-mass gravitational-wave antennae. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 246, 485-497.	0.9	31
126	<title>Optical microsphere resonators: optimal coupling and the ultimate Q</title>. , 1998, 3267, 251.		2

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127	The scheme of QND meter of microwave quadrature amplitude. Applied Physics B: Lasers and Optics, 1997, 64, 243-247.	1.1	1
128	Optical bars in gravitational wave antennas. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 232, 340-348.	0.9	84
129	Ultimate Q of optical microsphere resonators. Optics Letters, 1996, 21, 453.	1.7	934
130	‹title›Ultimate Q of optical microsphere resonators‹/title›. , 1996, 2799, 389.		3
131	Nondemolition intracavity photon number measurement by deflection of molecules in an external inhomogeneous field. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 191, 208-210.	0.9	5
132	Coupling and tunability of optical whispering-gallery modes: a basis for coordinate meter. Optics Communications, 1994, 107, 41-48.	1.0	56
133	High-Q optical whispering-gallery microresonators: precession approach for spherical mode analysis and emission patterns with prism couplers. Optics Communications, 1994, 113, 133-143.	1.0	203
134	Optical whispering-gallery microresonators. , 1994, 2097, 283.		4
135	On the ultimate sensitivity in coordinate measurements. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 179, 244-248.	0.9	21
136	Quality-factor and nonlinear properties of optical whispering-gallery modes. Physics Letters, Section A: General, Atomic and Solid State Physics, 1989, 137, 393-397.	0.9	663