Takuya Hirano

List of Publications by Year
in descending order

77 papers	2,172 citations	361045 20 h-index	223531 46 g-index
77 all docs	77 docs citations	77 times ranked	1699 citing authors

#	Article	IF	Citations
1	Improved waveguide-based ultraviolet light generation and pulsed squeezing at 795 nm. Optics Express, 2022, 30, 26120.	1.7	1
2	Effect of cascaded nonlinear phase shift on pulsed second-harmonic generation using periodically poled waveguide: a comparison of experimental and numerical results. Japanese Journal of Applied Physics, 2021, 60, 052001.	0.8	3
3	Quantum lock-in detection of a vector light shift. Physical Review A, 2021, 103, .	1.0	2
4	Sensitive spatially resolved magnetometry using a Bose-condensed gas with a bright probe. Physical Review A, 2021, 104, .	1.0	6
5	Compensation of gravity on cold atoms by a linear optical potential. Physical Review Research, 2020, 2, .	1.3	11
6	Wavelength division multiplexing of continuous variable quantum key distribution and 18.3 Tbit/s data channels. Communications Physics, 2019, 2, .	2.0	108
7	Interaction modulation in a long-lived Bose-Einstein condensate by rf coupling. Physical Review A, 2019, 99, .	1.0	7
8	Dissipation-Assisted Coherence Formation in a Spinor Quantum Gas. Physical Review Letters, 2019, 122, 245301.	2.9	4
9	Faraday patterns generated by Rabi oscillation in a binary Bose-Einstein condensate. Physical Review A, 2019, 100, .	1.0	12
10	Pulse-resolved measurement of continuous-variable Einstein-Podolsky-Rosen entanglement with shaped local oscillators. Optics Express, 2019, 27, 17610.	1.7	6
11	Challenges in Parallel Operation of Quantum Key Distribution and Data Transmission. , 2019, , .		1
12	Spinor dynamics in a mixture of spin-1 and spin-2 Bose-Einstein condensates. Physical Review A, 2018, 97, .	1.0	9
13	Ground-state phases of a mixture of spin-1 and spin-2 Bose-Einstein condensates. Physical Review A, 2018, 97, .	1.0	10
14	Joint Propagation of Continuous Variable Quantum Key Distribution and <tex>$18 imes 24.5$</tex> Gbaud PM-16QAM Channels. , 2018, , .		7
15	Time-Domain Measurement of Continuous-Variable Entanglement Using Temporally Shaped Local Oscillator Pulses. , 2018, , .		0
16	Secret key rate of a continuous-variable quantum-key-distribution scheme when the detection process is inaccessible to eavesdroppers. Physical Review A, 2018, 98, .	1.0	6
17	Coexistence of Continuous Variable Quantum Key Distribution and 7Ã—12.5 Gbit/s Classical Channels. , 2018, , .		10
18	Secure Transmission using QAM Quantum Noise Stream Cipher with Continuous Variable QKD. , 2018, , .		5

#	Article	IF	Citations
19	Notes on a Continuous-Variable Quantum Key Distribution Scheme. Journal of the Physical Society of Japan, 2017, 86, 094001.	0.7	1
20	Implementation of continuous-variable quantum key distribution with discrete modulation. Quantum Science and Technology, 2017, 2, 024010.	2.6	38
21	QAM Quantum Noise Stream Cipher Transmission Over 100 km With Continuous Variable Quantum Key Distribution. IEEE Journal of Quantum Electronics, 2017, 53, 1-16.	1.0	87
22	Nonequilibrium dynamics induced by miscibleâ€“immiscible transition in binary Boseâ€“Einstein condensates. New Journal of Physics, 2016, 18, 073029.	1.2	15
23	Bouncing motion and penetration dynamics in multicomponent Bose-Einstein condensates. Physical Review A, 2016, 93, .	1.0	16
24	Observation of strong continuous-variable Einstein-Podolsky-Rosen entanglement using shaped local oscillators. , 2016, , .		2
25	Generation of physical random numbers by using homodyne detection. , 2016, , .		0
26	Continuous operation of four-state continuous-variable quantum key distribution system. , 2016, , .		1
27	Cold Atom Magnetometers. Lecture Notes in Physics, 2016, , 111-133.	0.3	1
28	Suppression of relative flow by multiple domains in two-component Bose-Einstein condensates. Physical Review A, 2015, 92, .	1.0	9
29	Experimental realization of spatially separated entanglement with continuous variables using laser pulse trains. Scientific Reports, 2015, 5, 13029.	1.6	10
30	Control of spin current in a Bose gas by periodic application of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Ï€</mml:mi></mml:math>pulses. Physical Review A, 2014, 90, .	1.0	14
31	Observation of Dipole-Induced Spin Texture in an<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Rb</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>87</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>Bose-Einstein Condensate. Physical Review Letters, 2014, 112, 185301.	2.9	44
32	Ramsey Interferometry Using the Zeeman Sublevels in a Spin-2 Bose Gas. Journal of the Physical Society of Japan, 2013, 82, 094002.	0.7	16
33	Temporal Characteristics of Pulsed Squeezing in a Nonlinear Optical Waveguide. Japanese Journal of Applied Physics, 2013, 52, 048001.	0.8	1
34	Control and Detection of the Larmor Precession ofF= 2⁸⁷Rb Boseâ€“Einstein Condensates by Ramsey Interferometry and Spin-Echo. Applied Physics Express, 2013, 6, 052801.	1.1	14
35	Spin-echo-based magnetometry with spinor Bose-Einstein condensates. Physical Review A, 2013, 88, .	1.0	38
36	Collective Excitation of Boseâ€“Einstein Condensates Induced by Evaporative Cooling. Journal of the Physical Society of Japan, 2012, 81, 074002.	0.7	4

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37	Transporting continuous quantum variables of individual light pulses. Optics Express, 2011, 19, 1360.	1.7	1
38	Efficient homodyne measurement of picosecond squeezed pulses with pulse shaping technique. Optics Letters, 2011, 36, 4653.	1.7	23
39	Dynamics of Quadruply Quantized Vortices in 87Rb Boseâ€“Einstein Condensates Confined in Magnetic and Optical Traps. Journal of the Physical Society of Japan, 2010, 79, 034004.	0.7	15
40	Controlling phase separation of binary Bose-Einstein condensates via mixed-spin-channel Feshbach resonance. Physical Review A, 2010, 82, .	1.0	169
41	Spin-dependent inelastic collisions in spin-2 Bose-Einstein condensates. Physical Review A, 2009, 80, .	1.0	42
42	Time-resolved pulsed homodyne detector and its application to measurement of pulsed squeezed states. , 2009, , .		0
43	Pulsed homodyne detection of quadrature entanglement at telecommunication wavelength. , 2009, , .		0
44	Stable generation of quadrature entanglement using a ring interferometer. Physical Review A, 2009, 79, .	1.0	3
45	Collision dynamics between stretched states of spin-2 87Rb Boseâ€“Einstein condensates. Applied Physics B: Lasers and Optics, 2008, 93, 403-407.	1.1	10
46	Pulse-resolved measurement of quadrature phase amplitudes of squeezed pulse trains at a repetition rate of 76 MHz. Optics Letters, 2008, 33, 1458.	1.7	35
47	Observation of quadrature squeezing in a ?^(2) nonlinear waveguide using a temporally shaped local oscillator pulse. Optics Express, 2008, 16, 10650.	1.7	35
48	Controlling excess noise using acousto-optic modulator for quantum cryptography with continuous variables. , 2007, , .		0
49	Observation of squeezed light at 1535 Î¼m using a pulsed homodyne detector. Optics Letters, 2007, 32, 1698.	1.7	30
50	Free-space continuous-variable Quantum Cryptography. , 2007, , .		1
51	Experimental generation of broadband quadrature entanglement using laser pulses. Physical Review A, 2007, 76, .	1.0	20
52	Practical implementation of continuous-variable quantum key distribution. , 2006, 6244, 175.		2
53	Pulsed Homodyne Detection of Squeezed Light at Telecommunication Wavelength. Japanese Journal of Applied Physics, 2006, 45, L821-L823.	0.8	8
54	Efficient-phase-encoding protocols for continuous-variable quantum key distribution using coherent states and postselection. Physical Review A, 2006, 74, .	1.0	47

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55	Security of continuous-variable quantum cryptography using coherent states: Decline of postselection advantage. Physical Review A, 2005, 72, .	1.0	17
56	3 dB squeezing by single-pass parametric amplification in a periodically poled KTiOPO_4 crystal. Optics Letters, 2005, 30, 1722.	1.7	22
57	Practical Limitation for Continuous-Variable Quantum Cryptography using Coherent States. Physical Review Letters, 2004, 92, 117901.	2.9	61
58	Quantum key distribution with a single photon from a squeezed coherent state. Physical Review A, 2003, 67, .	1.0	15
59	Security of quantum cryptography using balanced homodyne detection. Physical Review A, 2003, 67, .	1.0	60
60	Feeling of Expectation and Uneasy about Competitive Research Funds. Trends in the Sciences, 2002, 7, 56-59.	0.0	0
61	Wideband squeezing in photon number fluctuations from a high-speed light-emitting diode. Optics Express, 2000, 7, 215.	1.7	9
62	Wide-band suppression of photon-number fluctuations in a high-speed light-emitting diode driven by a constant-current source. Applied Physics Letters, 1998, 72, 284-286.	1.5	18
63	3 dB Wideband Squeezing in Photon Number Fluctuations from a Light Emitting Diode. Japanese Journal of Applied Physics, 1997, 36, 6350-6352.	0.8	14
64	Novel Optical Trap of Atoms with a Doughnut Beam. Physical Review Letters, 1997, 78, 4713-4716.	2.9	798
65	Synchronization of a laser system to a modulation signal artificially constructed from its strange attractor. Physical Review E, 1997, 56, 6564-6568.	0.8	2
66	Observation of the collective Coulomb blockade effect in a constant-current-driven high-speed light-emitting diode. Journal of the Optical Society of America B: Optical Physics, 1997, 14, 1295.	0.9	15
67	Sub-Poissonian photon-states generated by light-emitting-diodes: Coulomb blockade of pump events and Stark-effect blockade of emission events. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 48, 26-33.	1.7	0
68	Investigating statistical properties of light from high efficiency light emitting diodes. Progress in Crystal Growth and Characterization of Materials, 1996, 33, 339-342.	1.8	5
69	Spectroscopic properties of cold rubidium atoms in a magneto-optic trap. Progress in Crystal Growth and Characterization of Materials, 1996, 33, 413-417.	1.8	1
70	Synchronization of a chaotic laser pulsation with its prerecorded history. Physical Review E, 1996, 54, 4476-4479.	0.8	6
71	Photon antibunching by destructive two-photon interference. Physical Review A, 1996, 53, 3621-3624.	1.0	13
72	Generation of weak sub-Poissonian light by a high-efficiency light-emitting diode. IEEE Journal of Quantum Electronics, 1995, 31, 2236-2240.	1.0	18

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73	Probing the two-photon phase coherence of parametrically down-converted photons by a local oscillator. Physical Review A, 1994, 50, R3605-R3608.	1.0	16
74	Two-photon correlation of squeezed pulse train. Optics Communications, 1994, 105, 214-218.	1.0	4
75	Photon antibunching in pulsed squeezed light generated via parametric amplification. Physical Review Letters, 1993, 71, 1164-1167.	2.9	56
76	Broadband squeezing of light by pulse excitation. Optics Letters, 1990, 15, 1153.	1.7	34
77	Pulsed Propagation of Polariton Luminescence. Physical Review Letters, 1988, 61, 1226-1228.	2.9	28