

Gregor Weihs

List of Publications by Year in descending order

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154
papers

11,889
citations

81743

39
h-index

29081

104
g-index

159
all docs

159
docs citations

159
times ranked

7701
citing authors

#	ARTICLE	IF	CITATIONS
1	Demonstration and modeling of time-bin entangled photons from a quantum dot in a nanowire. AIP Advances, 2022, 12, 055115.	0.6	5
2	Fast and efficient demultiplexing of single photons from a quantum dot with resonantly enhanced electro-optic modulators. APL Photonics, 2022, 7, .	3.0	9
3	SUPER Scheme in Action: Experimental Demonstration of Red-Detuned Excitation of a Quantum Emitter. Nano Letters, 2022, 22, 6567-6572.	4.5	19
4	Understanding photoluminescence in semiconductor Bragg-reflection waveguides. Journal of Optics (United Kingdom), 2021, 23, 035801.	1.0	4
5	Symmetry Allows for Distinguishability in Totally Destructive Many-Particle Interference. PRX Quantum, 2021, 2, .	3.5	8
6	Difference-frequency generation in an AlGaAs Bragg-reflection waveguide using an on-chip electrically-pumped quantum dot laser. Journal of Optics (United Kingdom), 2021, 23, 085802.	1.0	3
7	Wave-Particle Duality of Many-Body Quantum States. Physical Review X, 2021, 11, .	2.8	12
8	Optical Stark shift to control the dark exciton occupation of a quantum dot in a tilted magnetic field. Physical Review B, 2021, 104, .	1.1	6
9	Towards probing for hypercomplex quantum mechanics in a waveguide interferometer. New Journal of Physics, 2021, 23, 093038.	1.2	4
10	Approaching the Tsirelson bound with a Sagnac source of polarization-entangled photons. SciPost Physics, 2021, 10, .	1.5	4
11	Approaching the Tsirelson bound with a Sagnac source of polarization-entangled photons. , 2020, , .		1
12	Photon-number parity of heralded single photons from a Bragg-reflection waveguide reconstructed loss-tolerantly via moment generating function. New Journal of Physics, 2019, 21, 103025.	1.2	3
13	Integrated Semiconductor Quantum Photonics. , 2019, , .		0
14	Optimizing the spectro-temporal properties of photon pairs from Bragg-reflection waveguides. Journal of Optics (United Kingdom), 2019, 21, 054001.	1.0	4
15	Semi-automatic engineering and tailoring of high-efficiency Bragg-reflection waveguide samples for quantum photonic applications. Quantum Science and Technology, 2018, 3, 024002.	2.6	10
16	Hyperentanglement of Photons Emitted by a Quantum Dot. Physical Review Letters, 2018, 121, 110503.	2.9	43
17	Space QUEST mission proposal: experimentally testing decoherence due to gravity. New Journal of Physics, 2018, 20, 063016.	1.2	36
18	Invited Article: Time-bin entangled photon pairs from Bragg-reflection waveguides. APL Photonics, 2018, 3, 080804.	3.0	14

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19	Totally Destructive Many-Particle Interference. <i>Physical Review Letters</i> , 2018, 120, 240404.	2.9	31
20	Totally destructive interference for permutation-symmetric many-particle states. <i>Physical Review A</i> , 2018, 97, .	1.0	20
21	A Solid State Source of Photon Triplets based on Quantum Dot Molecules. , 2018, , .		0
22	Analysis of (hyper-) entanglement in quantum dot systems. , 2018, , .		0
23	Obtaining tight bounds on higher-order interferences with a 5-path interferometer. <i>New Journal of Physics</i> , 2017, 19, 033017.	1.2	37
24	A solid state source of photon triplets based on quantum dot molecules. <i>Nature Communications</i> , 2017, 8, 15716.	5.8	35
25	Observation of Genuine Three-Photon Interference. <i>Physical Review Letters</i> , 2017, 118, 153602.	2.9	64
26	Many-body quantum interference on hypercubes. <i>Quantum Science and Technology</i> , 2017, 2, 015003.	2.6	23
27	Interfacing a quantum dot with a spontaneous parametric down-conversion source. <i>Quantum Science and Technology</i> , 2017, 2, 034016.	2.6	5
28	Many-particle interference in a two-component bosonic Josephson junction: an all-optical simulation. <i>New Journal of Physics</i> , 2017, 19, 125015.	1.2	12
29	Side excitation of polaritonic molecules. , 2017, , .		0
30	Hyperentanglement of photons emitted by a quantum dot. , 2017, , .		0
31	Correlated photons from microcavity polariton parametric scattering. , 2017, , .		0
32	Individually shuttered waveguide multi-path interferometer. , 2017, , .		0
33	Observation of Genuine Three-Photon Interference. , 2017, , .		2
34	Hyper-Entanglement of Photons Emitted by a Quantum Dot. , 2017, , .		1
35	Temporally versatile polarization entanglement from Bragg reflection waveguides. <i>Optics Letters</i> , 2017, 42, 2102.	1.7	13
36	An Early Long-Distance Quantum Experiment. <i>The Frontiers Collection</i> , 2017, , 425-432.	0.1	0

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37	Implementation of quantum discrete fractional Fourier transform. , 2017, , .		0
38	Hyperentanglement of Photons Emitted by a Quantum Dot. , 2017, , .		0
39	Effects of photo-neutralization on the emission properties of quantum dots. Optics Express, 2016, 24, 21794.	1.7	4
40	Hybrid waveguide-bulk multi-path interferometer with switchable amplitude and phase. APL Photonics, 2016, 1, 081302.	3.0	12
41	Coherent two-photon excitation of quantum dots. , 2016, , .		0
42	Uncovering dispersion properties in semiconductor waveguides to study photon-pair generation. Nanotechnology, 2016, 27, 434003.	1.3	9
43	Coherence and degree of time-bin entanglement from quantum dots. Physical Review B, 2016, 93, .	1.1	23
44	Universal Sign Control of Coupling in Tight-Binding Lattices. Physical Review Letters, 2016, 116, 213901.	2.9	56
45	Implementation of quantum and classical discrete fractional Fourier transforms. Nature Communications, 2016, 7, 11027.	5.8	81
46	Universal sign-control of evanescent coupling. , 2016, , .		0
47	Direct measurement of second-order coupling in a waveguide lattice. Applied Physics Letters, 2015, 107, 241104.	1.5	19
48	Broadband indistinguishability from bright parametric downconversion in a semiconductor waveguide. Journal of Optics (United Kingdom), 2015, 17, 125201.	1.0	19
49	Optimal excitation conditions for indistinguishable photons from quantum dots. New Journal of Physics, 2015, 17, 123025.	1.2	31
50	Polarization entanglement generation in microcavity polariton devices. Physica Status Solidi (B): Basic Research, 2015, 252, 1749-1756.	0.7	4
51	Mode-resolved Fabry-Perot experiment in low-loss Bragg-reflection waveguides. Optics Express, 2015, 23, 33608.	1.7	13
52	Liquid-nitrogen cooled, free-running single-photon sensitive detector at telecommunication wavelengths. Applied Physics B: Lasers and Optics, 2015, 118, 489-495.	1.1	2
53	Foucault's method for measuring the speed of light with modern apparatus. European Journal of Physics, 2015, 36, 035013.	0.3	5
54	Rayleigh scattering in coupled microcavities: theory. Journal of Physics Condensed Matter, 2014, 26, 485303.	0.7	0

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55	Generation of hyper-entangled photon pairs in coupled microcavities. <i>New Journal of Physics</i> , 2014, 16, 063030.	1.2	16
56	Entanglement in a Bragg Reflection Waveguide. , 2014, , .		0
57	Efficiency vs multi-photon contribution test for quantum dots. <i>Optics Express</i> , 2014, 22, 4789.	1.7	39
58	Quantum non-Gaussian Depth of Single-Photon States. <i>Physical Review Letters</i> , 2014, 113, 223603.	2.9	52
59	Polarization Entangled Photons from Quantum Dots Embedded in Nanowires. <i>Nano Letters</i> , 2014, 14, 7107-7114.	4.5	73
60	An experimental implementation of oblivious transfer in the noisy storage model. <i>Nature Communications</i> , 2014, 5, 3418.	5.8	42
61	Measurement and modeling of the nonlinearity of photovoltaic and Geiger-mode photodiodes. <i>Review of Scientific Instruments</i> , 2014, 85, 063102.	0.6	13
62	QEYSSAT: a mission proposal for a quantum receiver in space. , 2014, , .		24
63	Experimental three-photon quantum nonlocality under strict locality conditions. <i>Nature Photonics</i> , 2014, 8, 292-296.	15.6	104
64	Time-bin entangled photons from a quantum dot. <i>Nature Communications</i> , 2014, 5, 4251.	5.8	127
65	User Friendly Photon Pairs. <i>Physics Magazine</i> , 2014, 7, .	0.1	0
66	Single quantum dots as photon pair emitters. , 2013, , .		0
67	Notes on evanescent wave Bragg-reflection waveguides. , 2013, , .		0
68	Measurement and modification of biexciton-exciton time correlations. <i>Optics Express</i> , 2013, 21, 9890.	1.7	19
69	Deterministic Photon Pairs and Coherent Optical Control of a Single Quantum Dot. <i>Physical Review Letters</i> , 2013, 110, 135505.	2.9	131
70	Measuring higher-order interferences with a five-path interferometer. , 2013, , .		0
71	Parametric polariton scattering as a source of entangled light. , 2013, , .		0
72	Parametric polariton scattering in quantum wires and coupled planar microcavities. , 2013, , .		0

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73	Experimental test of the robustness of the non-classicality of single photons. , 2013, , .		0
74	Semiconductor sources of photon pairs. Proceedings of SPIE, 2013, , .	0.8	0
75	Inherent polarization entanglement generated from a monolithic semiconductor chip. Scientific Reports, 2013, 3, 2314.	1.6	78
76	Pulsed Sagnac source of polarization entangled photon pairs. Optics Express, 2012, 20, 25022.	1.7	35
77	Multi-dimensional laser spectroscopy of exciton polaritons with spatial light modulators. Applied Physics Letters, 2012, 100, 072109.	1.5	2
78	Deterministic photon cascade from resonant two-photon excitation of a single InAs quantum dot. , 2012, , .		0
79	Studying free-space transmission statistics and improving free-space quantum key distribution in the turbulent atmosphere. New Journal of Physics, 2012, 14, 123018.	1.2	65
80	Monolithic Source of Photon Pairs. Physical Review Letters, 2012, 108, 153605.	2.9	109
81	Experimental Implementation of Oblivious Transfer in the Noisy Storage Model. , 2012, , .		1
82	Testing Born's Rule in Quantum Mechanics for Three Mutually Exclusive Events. Foundations of Physics, 2012, 42, 742-751.	0.6	44
83	Preface of the Special Issue Quantum Foundations: Theory and Experiment. Foundations of Physics, 2012, 42, 721-724.	0.6	13
84	Type-0 Spontaneous Parametric Down Conversion in AlGaAs Bragg Reflection Waveguides. , 2011, , .		0
85	Improving entangled free-space quantum key distribution in the turbulent atmosphere. , 2011, , .		1
86	Multi-order interference and Born's rule. , 2011, , .		0
87	Pulsed sagnac source of polarisation entangled photon pairs. , 2011, , .		0
88	Complete phase-space control of photoexcitation of microcavity polaritons using spatial light modulators. , 2011, , .		0
89	Triple photons and triple slits, a new frontier in quantum mechanics tests. , 2011, , .		0
90	Measurement and modification of biexciton-exciton time correlation from an InAs quantum dot. , 2011, , .		0

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91	Towards the generation of entangled microcavity polaritons. , 2011, , .		0
92	BestÄtigung fÄ¼r Bornsche Regel. Physik in Unserer Zeit, 2010, 41, 267-268.	0.0	0
93	Quantum entanglement distribution with 810 nm photons through telecom fibers. Applied Physics Letters, 2010, 97, 031117.	1.5	11
94	Ruling Out Multi-Order Interference in Quantum Mechanics. Science, 2010, 329, 418-421.	6.0	176
95	Entanglement Based Quantum Key Distribution Using a Bright Sagnac Entangled Photon Source. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2010, , 108-116.	0.2	6
96	Entanglement-based quantum key distribution with biased basis choice. , 2009, , .		1
97	Cluster-State Quantum Computing Enhanced by High-Fidelity Generalized Measurements. Physical Review Letters, 2009, 103, 240504.	2.9	31
98	Testing Born's rule in quantum mechanics for three mutually exclusive events. , 2009, , .		0
99	Entangled quantum key distribution with a biased basis choice. New Journal of Physics, 2009, 11, 045025.	1.2	20
100	Coherence measures for heralded single-photon sources. Physical Review A, 2009, 79, .	1.0	59
101	Characterizing heralded single-photon sources with imperfect measurement devices. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 114013.	0.6	31
102	Space-quest, experiments with quantum entanglement in space. Europhysics News, 2009, 40, 26-29.	0.1	77
103	Testing Born's Rule in Quantum Mechanics with a Triple Slit Experiment. , 2009, , .		24
104	Loopholes in Experiments. , 2009, , 348-355.		2
105	Multiple Quantum Well AlGaAs Nanowires. Nano Letters, 2008, 8, 495-499.	4.5	25
106	Entangled quantum key distribution over two free-space optical links. Optics Express, 2008, 16, 16840.	1.7	71
107	Growth and Characterization of GaAs Nanowires on Carbon Nanotube Composite Films: Toward Flexible Nanodevices. Nano Letters, 2008, 8, 4075-4080.	4.5	19
108	Entanglement based free-space quantum key distribution. , 2008, , .		1

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109	Towards single time-bin entangled photons using quantum dots. , 2008, , .		0
110	A Test of Bell's Inequality with Spacelike Separation. AIP Conference Proceedings, 2007, , .	0.3	10
111	Self-Directed Growth of AlGaAs Core-Shell Nanowires for Visible Light Applications. Nano Letters, 2007, 7, 2584-2589.	4.5	71
112	Entangled free-space quantum key distribution. , 2007, , .		2
113	The truth about reality. Nature, 2007, 445, 723-724.	13.7	13
114	Coherence by measurement. Nature Physics, 2007, 3, 687-688.	6.5	1
115	Experimental quantum cryptography with qutrits. New Journal of Physics, 2006, 8, 75-75.	1.2	329
116	PARAMETRIC DOWN-CONVERSION IN PHOTONIC CRYSTAL WAVEGUIDES. International Journal of Modern Physics B, 2006, 20, 1543-1550.	1.0	5
117	Happy centenary, photon. Nature, 2005, 433, 230-238.	13.7	116
118	Polariton lasing in a microcavity. Physica Status Solidi A, 2004, 201, 625-632.	1.7	16
119	Semiconductor microcavity as a spin-dependent optoelectronic device. Physical Review B, 2004, 70, .	1.1	68
120	Experimental extract and empirical formulas of refractive indices of GaAs and AlAs at high temperature by HRXRD and optical reflectivity measurement. Journal of Crystal Growth, 2003, 251, 777-781.	0.7	6
121	Experimental entanglement purification of arbitrary unknown states. Nature, 2003, 423, 417-422.	13.7	423
122	Polariton lasing vs. photon lasing in a semiconductor microcavity. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 15318-15323.	3.3	362
123	Exciton-polariton lasing in a microcavity. Semiconductor Science and Technology, 2003, 18, S386-S394.	1.0	23
124	Probabilistic instantaneous quantum computation. Physical Review A, 2003, 67, .	1.0	8
125	Concentration of Higher Dimensional Entanglement: Qutrits of Photon Orbital Angular Momentum. Physical Review Letters, 2003, 91, 227902.	2.9	240
126	Comment on "Exclusion of time in the theorem of Bell" by K. Hess and W. Philipp. Europhysics Letters, 2003, 61, 282-283.	0.7	16

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127	Photon Statistics and Quantum Teleportation Experiments. Journal of the Physical Society of Japan, 2003, 72, 168-173.	0.7	4
128	Dynamic condensation of cavity polaritons. , 2003, , .		0
129	Cloning of symmetric-level photonic states in physical systems. Physical Review A, 2002, 66, .	1.0	12
130	Superpositions of the orbital angular momentum for applications in quantum experiments. Journal of Optics B: Quantum and Semiclassical Optics, 2002, 4, S47-S51.	1.4	174
131	No time loophole in Bell's theorem: The Hess-Philipp model is nonlocal. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 14632-14635.	3.3	24
132	Experimental Two-Photon, Three-Dimensional Entanglement for Quantum Communication. Physical Review Letters, 2002, 89, 240401.	2.9	558
133	Quantum Dots: Multidimensional Quantum States of the Angular. Optics and Photonics News, 2002, 13, 54.	0.4	11
134	Condensation of Semiconductor Microcavity Exciton Polaritons. Science, 2002, 298, 199-202.	6.0	732
135	Bell's Theorem for Space-Like Separation. , 2002, , 155-162.		1
136	HIGH-FIDELITY EXPERIMENTAL QUANTUM TELEPORTATION AND ENTANGLEMENT SWAPPING. , 2002, , .		1
137	Experimental Demonstration of Four-Photon Entanglement and High-Fidelity Teleportation. Physical Review Letters, 2001, 86, 4435-4438.	2.9	482
138	Entanglement of the orbital angular momentum states of photons. Nature, 2001, 412, 313-316.	13.7	2,735
139	Experimental Nonlocality Proof of Quantum Teleportation and Entanglement Swapping. Physical Review Letters, 2001, 88, 017903.	2.9	215
140	Photonic entanglement for fundamental tests and quantum communication. Quantum Information and Computation, 2001, 1, 3-56.	0.1	247
141	Optimal photon cloning. Physical Review A, 2000, 62, .	1.0	26
142	Quantum Cryptography with Entangled Photons. Physical Review Letters, 2000, 84, 4729-4732.	2.9	763
143	Optimal Quantum Cloning via Stimulated Emission. Physical Review Letters, 2000, 84, 2993-2996.	2.9	149
144	A fast and compact quantum random number generator. Review of Scientific Instruments, 2000, 71, 1675-1680.	0.6	339

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145	Optimal quantum cloning and universal NOT without quantum gates. Journal of Modern Optics, 2000, 47, 233-246.	0.6	13
146	High-Efficiency Quantum Interrogation Measurements via the Quantum Zeno Effect. Physical Review Letters, 1999, 83, 4725-4728.	2.9	178
147	A Bell Experiment under Strict Einstein Locality Conditions. , 1999, , 267-269.		0
148	Violation of Bell's Inequality under Strict Einstein Locality Conditions. Physical Review Letters, 1998, 81, 5039-5043.	2.9	1,150
149	All-fiber three-path Mach-Zehnder interferometer. Optics Letters, 1996, 21, 302.	1.7	75
150	Two-photon interference in optical fiber multiports. Physical Review A, 1996, 54, 893-897.	1.0	39
151	Quantum communication and entanglement. , 0, , .		1
152	Experimental extract and experienced formulas of refractive indices of GaAs and AlAs at high temperature by high resolution x-ray diffraction and optical reflectivity measurement. , 0, , .		0
153	Dynamic condensation of microcavity exciton polaritons. , 0, , .		0
154	Violation of higher dimensional Bell inequalities with orbital angular momentum entangled photons. , 0, , .		0