Krzysztof Sacha

List of Publications by Year
in descending order

117	3,186	147726	175177
papers	citations	31 h-index	52 g-index

122	122	122	1874
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	All-optical dissipative discrete time crystals. Nature Communications, 2022, 13, 848.	5.8	44
2	Condensed matter physics in big discrete time crystals. AAPPS Bulletin, 2022, 32, 1.	2.7	10
3	A decade of time crystals: Quo vadis?. Europhysics Letters, 2022, 139, 10001.	0.7	7
4	Dissipative discrete time crystals in a pump-modulated Kerr microcavity. Communications Physics, 2022, 5, .	2.0	6
5	Anderson complexes: Bound states of atoms due to Anderson localization. Physical Review A, 2021, 103, .	1.0	4
6	Six-dimensional time-space crystalline structures. Physical Review B, 2021, 103, .	1.1	11
7	Discrete time crystals in Bose-Einstein condensates and the symmetry-breaking edge in a simple two-mode theory. Physical Review A, 2021, 104, .	1.0	5
8	Inseparable Time-Crystal Geometries on the MÃ¶bius Strip. Physical Review Letters, 2021, 127, 263003.	2.9	7
9	Controlled preparation of phases in two-dimensional time crystals. Physical Review Research, 2021, 3, .	1.3	7
10	Time Crystals. Springer Series on Atomic, Optical, and Plasma Physics, 2020, , .	0.1	40
11	Measurement of a one-dimensional matter-wave quantum breather. Physical Review A, 2020, 102, .	1.0	3
12	Comment on â€œQuantum Time Crystals and Interacting Gauge Theories in Atomic Bose-Einstein Condensatesâ€• Physical Review Letters, 2020, 124, 178901.	2.9	18
13	Quantum Measurements of Time. Physical Review Letters, 2020, 124, 110402.	2.9	41
14	Time crystals enter the real world of condensed matter. Physics World, 2020, 33, 42-46.	0.0	4
15	Discrete Time Crystals and Related Phenomena. Springer Series on Atomic, Optical, and Plasma Physics, 2020, , 39-172.	0.1	2
16	Creating big time crystals with ultracold atoms. New Journal of Physics, 2020, 22, 085004.	1.2	26
17	Phase diagram and optimal control for n-tupling discrete time crystal. New Journal of Physics, 2020, 22, 095001.	1.2	20
18	Lack of a genuine time crystal in a chiral soliton model. Physical Review Research, 2020, 2, .	1.3	14

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19	Condensed Matter Physics in the Time Dimension. Springer Series on Atomic, Optical, and Plasma Physics, 2020, , 173-235.	0.1	1
20	Topologically Protected Quantization of Work. Physical Review Letters, 2019, 123, 020601.	2.9	2
21	Time crystal minimizes its energy by performing Sisyphus motion. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18755-18756.	3.3	1
22	Symphony on strong field approximation. Reports on Progress in Physics, 2019, 82, 116001.	8.1	123
23	Topological time crystals. New Journal of Physics, 2019, 21, 052003.	1.2	38
24	Discrete time quasicrystals. Physical Review B, 2019, 99, .	1.1	46
25	Determination of Chern numbers with a phase-retrieval algorithm. Physical Review A, 2019, 99, .	1.0	2
26	Fractional time crystals. Physical Review A, 2019, 99, .	1.0	32
27	Creating big time crystals with ultracold atoms. , 2019, , .		0
28	Time Crystal Platform: From Quasicrystal Structures in Time to Systems with Exotic Interactions. Physical Review Letters, 2018, 120, 140401.	2.9	49
29	Time crystals: a review. Reports on Progress in Physics, 2018, 81, 016401.	8.1	322
30	Dynamical quantum phase transitions in discrete time crystals. Physical Review A, 2018, 97, .	1.0	51
31	Time crystals: Analysis of experimental conditions. Physical Review A, 2018, 98, .	1.0	54
32	Dynamical quantum phase transitions in systems with broken continuous time and space translation symmetries. Physical Review A, 2018, 98, .	1.0	25
33	Emergence of dark soliton signatures in a one-dimensional unpolarized attractive Fermi gas on a ring. Physical Review A, 2018, 98, .	1.0	5
34	Localization in random fractal lattices. Physical Review B, 2017, 95, .	1.1	21
35	Quantum dark solitons in a Bose gas confined in a hard-wall box. Physical Review A, 2017, 96, .	1.0	14
36	Many-body localization caused by temporal disorder. Physical Review B, 2017, 96, .	1.1	36

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37	Anderson localization of a Rydberg electron along a classical orbit. Physical Review A, 2017, 95, .	1.0	27
38	Three-Dimensional Localized-Delocalized Anderson Transition in the Time Domain. Physical Review Letters, 2017, 119, 230404.	2.9	28
39	Time Crystal Behavior of Excited Eigenstates. Physical Review Letters, 2017, 119, 250602.	2.9	44
40	Anderson localization in the time domain. Physical Review A, 2016, 94, .	1.0	31
41	Single-shot simulations of dynamics of quantum dark solitons. Physical Review A, 2016, 94, .	1.0	24
42	Lieb-Liniger model: Emergence of dark solitons in the course of measurements of particle positions. Physical Review A, 2015, 92, .	1.0	38
43	Anderson localization and Mott insulator phase in the time domain. Scientific Reports, 2015, 5, 10787.	1.6	44
44	Artificial magnetic field induced by an evanescent wave. Scientific Reports, 2015, 5, 7672.	1.6	8
45	Modeling spontaneous breaking of time-translation symmetry. Physical Review A, 2015, 91, .	1.0	241
46	Simulation of non-Abelian lattice gauge fields with a single-component gas. Europhysics Letters, 2014, 107, 26006.	0.7	22
47	Condensate Phase Microscopy. Physical Review Letters, 2014, 112, 045302.	2.9	6
48	Gender differences in the interaction between heart rate and its variability â€" How to use it to improve the prognostic power of heart rate variability. International Journal of Cardiology, 2014, 171, e42-e45.	0.8	28
49	Many-Body Matter-Wave Dark Soliton. Physical Review Letters, 2014, 112, 040402.	2.9	40
50	Proper phase imprinting method for a dark soliton excitation in a superfluid Fermi mixture. Physical Review A, 2014, 90, .	1.0	17
51	Heart rate impact on the reproducibility of heart rate variability analysis. International Journal of Cardiology, 2013, 168, 4257-4259.	0.8	51
52	How to select patients who will not benefit from ICD therapy by using heart rate and its variability?. International Journal of Cardiology, 2013, 168, 1655-1658.	0.8	35
53	Many-body Anderson localization in one-dimensional systems. New Journal of Physics, 2013, 15, 045021.	1.2	28
54	How to strengthen or weaken the HRV dependence on heart rate â€" Description of the method and its perspectives. International Journal of Cardiology, 2013, 168, 1660-1663.	0.8	81

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55	Matter-wave interference versus spontaneous pattern formation in spinor Bose-Einstein condensates. Physical Review A, 2013, 88, .	1.0	2
56	Simulation of frustrated classical<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>X</mml:mi><mml:mi>Y</mml:mi></mml:mrow></mml:math>models with ultracold atoms in three-dimensional triangular optical lattices. Physical Review A, 2013, 87, .	1.0	7
57	Inert states of spin-5 and spin-6 Boseâ€“Einstein condensates. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 045103.	0.7	5
58	Breakdown of Anderson localization of interacting quantum bright solitons in a disorder potential. Physical Review A, 2012, 86, .	1.0	6
59	Dark soliton in a disorder potential. Physical Review A, 2012, 85, .	1.0	12
60	Frustration and time-reversal symmetry breaking for Fermi and Bose-Fermi systems. Physical Review A, 2012, 85, .	1.0	20
61	Short-term deceleration capacity reveals higher reproducibility than spectral heart rate variability indices during self-monitoring at home. International Journal of Cardiology, 2011, 152, 271-272.	0.8	10
62	Quantum particle-number fluctuations in a two-component Bose gas in a double-well potential. Physical Review A, 2011, 84, .	1.0	7
63	Matter-wave analog of an optical random laser. Physical Review A, 2011, 84, .	1.0	15
64	Bose-Einstein condensate in a double well potential in the vicinity of a critical point. Laser Physics, 2010, 20, 671-677.	0.6	12
65	Self-localization of a small number of Bose particles in a superfluid Fermi system. Physical Review A, 2010, 82, .	1.0	14
66	Phase effects in double ionization by strong short pulses. Chemical Physics, 2010, 370, 168-174.	0.9	18
67	Comment on â€œQuantum Entangled Dark Solitons Formed by Ultracold Atoms in Optical Latticesâ€. Physical Review Letters, 2010, 105, 018903; author reply 018904.	2.9	13
68	Anderson Localization of Solitons. Physical Review Letters, 2009, 103, 210402.	2.9	45
69	Disorder-induced phase control in superfluid Fermi-Bose mixtures. Europhysics Letters, 2009, 86, 26004.	0.7	22
70	Quantum Bright Soliton in a Disorder Potential. Acta Physica Polonica A, 2009, 116, 772-778.	0.2	4
71	N-conserving Bogoliubov vacuum of a two-component Boseâ€“Einstein condensate: density fluctuations close to a phase-separation condition. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 145005.	0.7	27
72	Critical fluctuations of an attractive Bose gas in a double-well potential. Europhysics Letters, 2008, 83, 64007.	0.7	30

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73	Second-order quantum phase transition of a homogeneous Bose gas with attractive interactions. Physical Review A, 2008, 78, .	1.0	9
74	Quantum model for double ionization of atoms in strong laser fields. Physical Review A, 2008, 78, .	1.0	26
75	Suppression of correlated electron escape in double ionization in strong laser fields. Physical Review A, 2008, 77, .	1.0	9
76	Disorder-Induced Order in Two-Component Bose-Einstein Condensates. Physical Review Letters, 2008, 100, 030403.	2.9	49
77	Momentum distributions after double ionization. Chaos, 2008, 18, 041110.	1.0	0
78	Time-Resolved Quantum Dynamics of Double Ionization in Strong Laser Fields. Physical Review Letters, 2007, 98, 203002.	2.9	60
79	Solitons in coupled atomicâ€“molecular Boseâ€“Einstein condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 1103-1116.	0.6	9
80	Nonsequential Double Ionization of Atoms in Strong Laser Pulses. Acta Physica Polonica A, 2007, 112, 699-706.	0.2	2
81	Self-localized impurities embedded in a one-dimensional Bose-Einstein condensate and their quantum fluctuations. Physical Review A, 2006, 73, .	1.0	77
82	N-particle Bogoliubov vacuum state. Laser Physics, 2006, 16, 1134-1139.	0.6	0
83	Images of a Bose-Einstein condensate in position and momentum space. Laser Physics, 2006, 16, 1710-1713.	0.6	1
84	Classical threshold behaviour in a (1+1)-dimensional model for double ionization in strong fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 3865-3871.	0.6	16
85	Analysis of localization phenomena in weakly interacting disordered lattice gases. New Journal of Physics, 2006, 8, 230-230.	1.2	22
86	Images of a Boseâ€“Einstein condensate: diagonal dynamical Bogoliubov vacuum. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 57-68.	0.6	24
87	Cold Atomic Gases in Optical Lattices with Disorder. Acta Physica Polonica A, 2006, 109, 89-99.	0.2	3
88	Nonsequential double ionization of molecules. Physical Review A, 2005, 71, .	1.0	18
89	Routes Towards Anderson-Like Localization of Bose-Einstein Condensates in Disordered Optical Lattices. Physical Review Letters, 2005, 95, 170411.	2.9	214
90	Changes of the topological charge of vortices. Journal of Physics A, 2003, 36, 2339-2345.	1.6	15

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91	Bogoliubov theory of a Bose-Einstein condensate in the particle representation. Physical Review A, 2003, 67, .	1.0	18
92	Bose-Einstein-condensate heating by atomic losses. Physical Review A, 2003, 68, .	1.0	16
93	Images of the dark soliton in a depleted condensate. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 1217-1229.	0.6	60
94	Pathways to non-sequential multiple ionization in strong laser fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 3923-3935.	0.6	6
95	Depletion of the dark soliton: The anomalous mode of the Bogoliubov theory. Physical Review A, 2002, 66, .	1.0	46
96	Quantum depletion of an excited condensate. Physical Review A, 2002, 66, .	1.0	33
97	Stirring a BoseÂEinstein condensate. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 4051-4057.	0.6	8
98	Collective excitation of trapped degenerate Fermi gases. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, L153-L159.	0.6	9
99	Mean field loops versus quantum anti-crossing nets in trapped Bose-Einstein condensates. European Physical Journal D, 2002, 21, 251-254.	0.6	24
100	Simple method for excitation of a Bose-Einstein condensate. Physical Review A, 2001, 65, .	1.0	24
101	Wannier threshold law for two-electron escape in the presence of an external electric field. Europhysics Letters, 2001, 56, 651-657.	0.7	20
102	Classical Analysis of Correlated Multiple Ionization in Strong Fields. Physica Scripta, 2001, T90, 185.	1.2	12
103	Driven Rydberg Atoms Reveal Quartic Level Repulsion. Physical Review Letters, 2001, 86, 2269-2272.	2.9	5
104	Pathways to double ionization of atoms in strong fields. Physical Review A, 2001, 63, .	1.0	60
105	Nonsequential triple ionization in strong fields. Physical Review A, 2001, 64, .	1.0	32
106	Method for collective excitation of a Bose-Einstein condensate. Physical Review A, 2001, 63, .	1.0	16
107	Classical Analysis of Correlated Multiple Ionization in Strong Fields. , 2001, , .		0
108	Breaking Time Reversal Symmetry in Chaotic Driven Rydberg Atoms. Annals of Physics, 2000, 283, 141-172.	1.0	8

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109	Non-resonant driving of an H atom with broken time-reversal symmetry. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 2617-2622.	0.6	2
110	Resonant dynamics of the H atom in an elliptically polarized microwave field. Physical Review A, 1999, 59, 1707-1710.	1.0	4
111	Chaotic Rydberg Atoms with Broken Time-Reversal Symmetry. Physical Review Letters, 1999, 83, 2922-2925.	2.9	14
112	Quasiclassical dynamics of resonantly driven Rydberg states. European Physical Journal D, 1999, 5, 145-157.	0.6	9
113	Controlling nonspreading wavepackets. European Physical Journal D, 1998, 1, 231-234.	0.6	10
114	H-atom ionization by elliptically polarized microwave fields: Three-dimensional analysis. Physical Review A, 1998, 58, 488-497.	1.0	8
115	H atom in elliptically polarized microwaves:â€,Semiclassical versus quantum resonant dynamics. Physical Review A, 1998, 58, 3974-3982.	1.0	8
116	Resonance overlap criterion for H atom ionization by circularly polarized microwave fields. Physical Review A, 1997, 55, 568-576.	1.0	11
117	H-atom ionization by elliptically polarized microwave fields: The overlap criterion. Physical Review A, 1997, 56, 719-728.	1.0	11