

# Pãivi Tãrmã

## List of Publications by Year in descending order

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162  
papers

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citations

81743

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163  
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163  
docs citations

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times ranked

6286  
citing authors

#	ARTICLE	IF	CITATIONS
1	Strong coupling between surface plasmon polaritons and emitters: a review. Reports on Progress in Physics, 2015, 78, 013901.	8.1	1,109
2	Superfluidity in topologically nontrivial flat bands. Nature Communications, 2015, 6, 8944.	5.8	297
3	Plasmonic Surface Lattice Resonances at the Strong Coupling Regime. Nano Letters, 2014, 14, 1721-1727.	4.5	275
4	Vacuum Rabi Splitting and Strong-Coupling Dynamics for Surface-Plasmon Polaritons and Rhodamine 6G Molecules. Physical Review Letters, 2009, 103, 053602.	2.9	265
5	Virus-Encapsulated DNA Origami Nanostructures for Cellular Delivery. Nano Letters, 2014, 14, 2196-2200.	4.5	254
6	Geometric Origin of Superfluidity in the Lieb-Lattice Flat Band. Physical Review Letters, 2016, 117, 045303.	2.9	186
7	Spatial Coherence Properties of Organic Molecules Coupled to Plasmonic Surface Lattice Resonances in the Weak and Strong Coupling Regimes. Physical Review Letters, 2014, 112, 153002.	2.9	167
8	Optimization of dual-core and microstructure fiber geometries for dispersion compensation and large mode area. Optics Express, 2005, 13, 627.	1.7	138
9	Photon Chopping: New Way to Measure the Quantum State of Light. Physical Review Letters, 1996, 76, 2464-2467.	2.9	136
10	Strongly Interacting Fermi Gases with Density Imbalance. Physical Review Letters, 2006, 96, 110403.	2.9	132
11	Band geometry, Berry curvature, and superfluid weight. Physical Review B, 2017, 95, .	1.1	129
12	Surface lattice resonances and magneto-optical response in magnetic nanoparticle arrays. Nature Communications, 2015, 6, 7072.	5.8	126
13	Geometry dependence of surface lattice resonances in plasmonic nanoparticle arrays. Physical Review B, 2017, 95, .	1.1	126
14	Superfluid weight and Berezinskii-Kosterlitz-Thouless transition temperature of twisted bilayer graphene. Physical Review B, 2020, 101, .	1.1	124
15	Pairing Gap and In-Gap Excitations in Trapped Fermionic Superfluids. Science, 2004, 305, 1131-1133.	6.0	118
16	Approximate quantum Fourier transform and decoherence. Physical Review A, 1996, 54, 139-146.	1.0	111
17	DNA origami as a nanoscale template for protein assembly. Nanotechnology, 2009, 20, 235305.	1.3	104
18	Laser Probing of Atomic Cooper Pairs. Physical Review Letters, 2000, 85, 487-490.	2.9	102

#	ARTICLE	IF	CITATIONS
19	The Fulde-Ferrell-Larkin-Ovchinnikov state for ultracold fermions in lattice and harmonic potentials: a review. Reports on Progress in Physics, 2018, 81, 046401.	8.1	90
20	Dielectrophoretic Trapping of DNA Origami. Small, 2008, 4, 447-450.	5.2	88
21	Finite-Temperature Phase Diagram of a Polarized Fermi Gas in an Optical Lattice. Physical Review Letters, 2007, 99, 120403.	2.9	86
22	Assembly of Single-Walled Carbon Nanotubes on DNA Origami Templates through Streptavidin-Biotin Interaction. Small, 2011, 7, 746-750.	5.2	86
23	High-Speed Memory from Carbon Nanotube Field-Effect Transistors with High- $\epsilon$ Gate Dielectric. Nano Letters, 2009, 9, 643-647.	4.5	82
24	Carbon Nanotubes as Electrodes for Dielectrophoresis of DNA. Nano Letters, 2006, 6, 1339-1343.	4.5	78
25	Topological Phase Transitions in the Repulsively Interacting Haldane-Hubbard Model. Physical Review Letters, 2016, 116, 225305.	2.9	72
26	Trapping of 27 bp-8 kbp DNA and immobilization of thiol-modified DNA using dielectrophoresis. Nanotechnology, 2007, 18, 295204.	1.3	68
27	Dielectrophoresis of nanoscale double-stranded DNA and humidity effects on its electrical conductivity. Applied Physics Letters, 2005, 87, 183102.	1.5	67
28	Lasing at $K$ Points of a Honeycomb Plasmonic Lattice. Physical Review Letters, 2019, 122, 013901.	2.9	61
29	Entanglement engineering of one-photon wave packets using a single-atom source. Physical Review A, 1998, 58, R2627-R2630.	1.0	60
30	FFLO state in 1-, 2- and 3-dimensional optical lattices combined with a non-uniform background potential. New Journal of Physics, 2008, 10, 045014.	1.2	60
31	Pairing in a three-component Fermi gas. Physical Review A, 2006, 73, .	1.0	56
32	High-temperature superconductivity. Nature Reviews Physics, 2021, 3, 462-465.	11.9	54
33	Controlling quantum dot emission by plasmonic nanoarrays. Optics Express, 2015, 23, 28206.	1.7	53
34	Spectral Signatures of the Fulde-Ferrell-Larkin-Ovchinnikov Order Parameter in One-Dimensional Optical Lattices. Physical Review Letters, 2008, 101, 120404.	2.9	48
35	Expansion Dynamics in the One-Dimensional Fermi-Hubbard Model. Physical Review Letters, 2011, 106, 206401.	2.9	45
36	Dynamical Localization in the Paul Trap. Physical Review Letters, 1997, 78, 4181-4184.	2.9	44

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37	Quantum metric and effective mass of a two-body bound state in a flat band. <i>Physical Review B</i> , 2018, 98, .	1.1	44
38	Scaling and Diabatic Effects in Quantum Annealing with a D-Wave Device. <i>Physical Review Letters</i> , 2020, 124, 090502.	2.9	44
39	Hamiltonian theory of symmetric optical network transforms. <i>Physical Review A</i> , 1995, 52, 4853-4860.	1.0	42
40	Characterization of the Conductance Mechanisms of DNA Origami by AC Impedance Spectroscopy. <i>Small</i> , 2009, 5, 2382-2386.	5.2	40
41	Lasing in Ni Nanodisk Arrays. <i>ACS Nano</i> , 2019, 13, 5686-5692.	7.3	40
42	Fermion pairing with spin-density imbalance in an optical lattice. <i>New Journal of Physics</i> , 2006, 8, 179-179.	1.2	39
43	Effect of humidity on the hysteresis of single walled carbon nanotube field-effect transistors. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 2315-2318.	0.7	38
44	Dynamics of a many-particle Landau-Zener model: Inverse sweep. <i>Physical Review A</i> , 2009, 79, .	1.0	37
45	Probing the Fulde-Ferrell-Larkin-Ovchinnikov Phase by Double Occupancy Modulation Spectroscopy. <i>Physical Review Letters</i> , 2010, 104, 236402.	2.9	37
46	Fulde-Ferrell states and Berezinskii-Kosterlitz-Thouless phase transition in two-dimensional imbalanced Fermi gases. <i>Physical Review B</i> , 2014, 89, .	1.1	36
47	Ultrafast Pulse Generation in an Organic Nanoparticle-Array Laser. <i>Nano Letters</i> , 2018, 18, 2658-2665.	4.5	36
48	Multimode Organic Polariton Lasing. <i>Physical Review Letters</i> , 2020, 125, 233603.	2.9	36
49	Laser probing of Cooper-paired trapped atoms. <i>Physical Review A</i> , 2001, 64, .	1.0	35
50	Coexistence and shell structures of several superfluids in trapped three-component Fermi mixtures. <i>Physical Review A</i> , 2007, 75, .	1.0	34
51	Dynamics of an impurity in a one-dimensional lattice. <i>New Journal of Physics</i> , 2013, 15, 045018.	1.2	34
52	Expansion dynamics of the Fulde-Ferrell-Larkin-Ovchinnikov state. <i>Physical Review A</i> , 2011, 84, .	1.0	32
53	Sub-picosecond thermalization dynamics in condensation of strongly coupled lattice plasmons. <i>Nature Communications</i> , 2020, 11, 3139.	5.8	32
54	Signatures of Superfluidity for Feshbach-Resonant Fermi Gases. <i>Physical Review Letters</i> , 2004, 92, 230403.	2.9	30

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55	Quantum Geometry and Flat Band Bose-Einstein Condensation. <i>Physical Review Letters</i> , 2021, 127, 170404.	2.9	30
56	Negative Differential Resistance in Carbon Nanotube Field-Effect Transistors with Patterned Gate Oxide. <i>ACS Nano</i> , 2010, 4, 3356-3362.	7.3	29
57	Light-matter coupling and quantum geometry in moiré materials. <i>Physical Review B</i> , 2021, 104, .	1.1	29
58	Band structures for nonlinear photonic crystals. <i>Journal of Applied Physics</i> , 2002, 91, 3988-3991.	1.1	28
59	Beam splitter realizations of totally symmetric mode couplers. <i>Journal of Modern Optics</i> , 1996, 43, 245-251.	0.6	27
60	Quasi-Two-Dimensional Superfluid Fermionic Gases. <i>Physical Review Letters</i> , 2005, 95, 170407.	2.9	27
61	One-Dimensional Plasmonic Nanoparticle Chain Lasers. <i>ACS Photonics</i> , 2018, 5, 1822-1826.	3.2	27
62	Electron-phonon heat transport and electronic thermal conductivity in heavily doped silicon-on-insulator film. <i>Journal of Applied Physics</i> , 2003, 94, 3201-3205.	1.1	26
63	Sound velocity and dimensional crossover in a superfluid Fermi gas in an optical lattice. <i>Physical Review A</i> , 2006, 73, .	1.0	25
64	Transitions in Quantum Networks. <i>Physical Review Letters</i> , 1998, 81, 2185-2189.	2.9	24
65	Localization and diffusion in Ising-type quantum networks. <i>Physical Review A</i> , 2002, 65, .	1.0	24
66	Intervalley-Scattering-Induced Electron-Phonon Energy Relaxation in Many-Valley Semiconductors at Low Temperatures. <i>Physical Review Letters</i> , 2005, 95, 206602.	2.9	24
67	Coherent fluorescence emission by using hybrid photonic-plasmonic crystals. <i>Laser and Photonics Reviews</i> , 2014, 8, 717-725.	4.4	24
68	Induced Interactions for Ultracold Fermi Gases in Optical Lattices. <i>Physical Review Letters</i> , 2009, 102, 245301.	2.9	23
69	Exotic Superfluid States of Lattice Fermions in Elongated Traps. <i>Physical Review Letters</i> , 2011, 106, 095301.	2.9	23
70	Finite-temperature stability and dimensional crossover of exotic superfluidity in lattices. <i>Physical Review B</i> , 2013, 87, .	1.1	23
71	Non-BCS superfluidity in trapped ultracold Fermi gases. <i>Physical Review A</i> , 2007, 76, .	1.0	22
72	Quasi-BIC Mode Lasing in a Quadrumer Plasmonic Lattice. <i>ACS Photonics</i> , 2022, 9, 224-232.	3.2	22

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73	High-yield of memory elements from carbon nanotube field-effect transistors with atomic layer deposited gate dielectric. <i>New Journal of Physics</i> , 2008, 10, 103019.	1.2	21
74	Wave-packet dynamics of Bogoliubov quasiparticles: Quantum metric effects. <i>Physical Review B</i> , 2017, 96, .	1.1	21
75	Josephson effect in superfluid atomic Fermi gases. <i>Physical Review A</i> , 2002, 66, .	1.0	20
76	Induced Interactions and the Superfluid Transition Temperature in a Three-Component Fermi Gas. <i>Physical Review Letters</i> , 2009, 103, 260403.	2.9	20
77	Fulde-Ferrell-Larkin-Ovchinnikov state in the dimensional crossover between one- and three-dimensional lattices. <i>Physical Review B</i> , 2012, 85, .	1.1	20
78	Nonlocal Quantum Fluctuations and Fermionic Superfluidity in the Imbalanced Attractive Hubbard Model. <i>Physical Review Letters</i> , 2014, 113, 185301.	2.9	20
79	Measurement and preparation using two probe modes. <i>Physical Review A</i> , 1995, 52, 4812-4822.	1.0	19
80	Vortices in Trapped Superfluid Fermi Gases. <i>Physical Review Letters</i> , 2001, 87, 100402.	2.9	19
81	Molecular coupling of light with plasmonic waveguides. <i>Optics Express</i> , 2007, 15, 9908.	1.7	19
82	Condensation phenomena in plasmonics. <i>Physical Review A</i> , 2014, 90, .	1.0	19
83	Self-Assembled Silver Nanoparticles in a Bow-Tie Antenna Configuration. <i>Small</i> , 2014, 10, 1057-1062.	5.2	18
84	Magnetic on/off switching of a plasmonic laser. <i>Nature Photonics</i> , 2022, 16, 27-32.	15.6	18
85	Multimode Coherent States. <i>Journal of Modern Optics</i> , 1995, 42, 1377-1386.	0.6	17
86	Assembling gold nanoparticle chains using an AC electrical field: Electrical detection of organic thiols. <i>Sensors and Actuators B: Chemical</i> , 2013, 176, 368-373.	4.0	17
87	Strong coupling between organic dye molecules and lattice modes of a dielectric nanoparticle array. <i>Nanophotonics</i> , 2020, 9, 267-276.	2.9	17
88	Bloch oscillations in Fermi gases. <i>Physical Review A</i> , 2004, 69, .	1.0	16
89	Superfluidity and density order in a bilayer extended Hubbard model. <i>Physical Review B</i> , 2015, 91, .	1.1	16
90	Excitations of a Bose-Einstein condensate and the quantum geometry of a flat band. <i>Physical Review B</i> , 2021, 104, .	1.1	16

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91	Quantum transport of non-interacting Fermi gas in an optical lattice combined with harmonic trapping. <i>New Journal of Physics</i> , 2004, 6, 59-59.	1.2	15
92	Noise correlations of the ultracold Fermi gas in an optical lattice. <i>Physical Review A</i> , 2008, 77, .	1.0	15
93	Hopping Modulation in a One-Dimensional Fermi-Hubbard Hamiltonian. <i>Physical Review Letters</i> , 2009, 103, 066404.	2.9	15
94	All-Optical Emission Control and Lasing in Plasmonic Lattices. <i>ACS Photonics</i> , 2020, 7, 2850-2858.	3.2	15
95	Flat-band transport and Josephson effect through a finite-size sawtooth lattice. <i>Physical Review B</i> , 2021, 103, .	1.1	15
96	Effect of wavelength dependence of nonlinearity, gain, and dispersion in photonic crystal fiber amplifiers. <i>Optics Express</i> , 2005, 13, 4286.	1.7	14
97	Collective modes and the speed of sound in the Fulde-Ferrell-Larkin-Ovchinnikov state. <i>Physical Review A</i> , 2011, 83, .	1.0	14
98	One-dimensional Fermi polaron in a combined harmonic and periodic potential. <i>Physical Review A</i> , 2014, 89, .	1.0	14
99	Spin-imbalanced pairing and Fermi surface deformation in flat bands. <i>Physical Review B</i> , 2018, 97, .	1.1	14
100	Conditions for waveguide decoupling in square-lattice photonic crystals. <i>Journal of Applied Physics</i> , 2004, 96, 4039-4041.	1.1	13
101	Superfluid phases of fermions with hybridized sandporbitals. <i>Physical Review A</i> , 2015, 92, .	1.0	13
102	Coupled dipole approximation across the $\hat{\Gamma}$ -point in a finite-sized nanoparticle array. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160316.	1.6	13
103	Quantum logic using polarized photons. <i>Physical Review A</i> , 1996, 54, 4701-4706.	1.0	12
104	Fermi-polaron-like effects in a one-dimensional (1D) optical lattice. <i>New Journal of Physics</i> , 2010, 12, 073044.	1.2	12
105	Controlling the Formation of DNA Origami Structures with External Signals. <i>Small</i> , 2012, 8, 2016-2020.	5.2	12
106	Larkin-Ovchinnikov phases in two-dimensional square lattices. <i>Journal of Modern Optics</i> , 2016, 63, 1795-1804.	0.6	12
107	Converting an Organic Light-Emitting Diode from Blue to White with Bragg Modes. <i>ACS Photonics</i> , 2019, 6, 2655-2662.	3.2	12
108	Multiple coincidences and the quantum state reconstruction problem. <i>Physical Review A</i> , 1997, 56, 4076-4085.	1.0	11

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109	Surface plasmon polariton-controlled tunable quantum-dot emission. Applied Physics Letters, 2012, 100, 221111.	1.5	11
110	Spin-imbalanced Fermi superfluidity in a Hubbard model on a Lieb lattice. Physical Review B, 2018, 98, .	1.1	11
111	Properties of Ising-type linear networks. Journal of Optics B: Quantum and Semiclassical Optics, 1999, 1, 8-13.	1.4	10
112	Laser-induced collective excitations in a two-component Fermi gas. Physical Review A, 2002, 66, .	1.0	10
113	Application of superconductor?semiconductor Schottky barrier for electron cooling. Physica B: Condensed Matter, 2003, 329-333, 1481-1484.	1.3	10
114	Atomic lattice excitons: from condensates to crystals. New Journal of Physics, 2007, 9, 407-407.	1.2	10
115	Frequency conversion of propagating surface plasmon polaritons by organic molecules. Applied Physics Letters, 2008, 93, 123307.	1.5	10
116	A synthetic biological quantum optical system. Nanoscale, 2018, 10, 13064-13073.	2.8	10
117	Plate beam splitters and symmetric multiports. Journal of Modern Optics, 1996, 43, 2403-2408.	0.6	9
118	Scissors modes of two-component degenerate gases: Bose-Bose and Bose-Fermi mixtures. Physical Review A, 2004, 69, .	1.0	9
119	Characterization of used mineral oil condition by spectroscopic techniques. Applied Optics, 2004, 43, 4718.	2.1	9
120	Field-induced Nanolithography for High-Throughput Pattern Transfer. Small, 2009, 5, 2683-2686.	5.2	9
121	Spatial and Temporal Coherence in Strongly Coupled Plasmonic Bose-Einstein Condensates. Physical Review Letters, 2021, 127, 255301.	2.9	9
122	Dielectrophoresis as a tool for nanoscale DNA manipulation. International Journal of Nanotechnology, 2005, 2, 280.	0.1	8
123	Fabrication of carbon nanotube-based field-effect transistors for studies of their memory effects. Physica Status Solidi (B): Basic Research, 2007, 244, 4188-4192.	0.7	8
124	Population imbalance in the extended Fermi-Hubbard model. Physical Review B, 2016, 94, .	1.1	8
125	Control of dynamical localization by an additional quantum degree of freedom. Physical Review A, 1999, 59, 797-802.	1.0	7
126	Electron-phonon heat transport in degenerate Si at low temperatures. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 2848-2851.	0.8	7

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127	Beyond Linear Response Spectroscopy of Ultracold Fermi Gases. <i>Physical Review Letters</i> , 2006, 96, 070402.	2.9	7
128	A hybrid method for calorimetry with subnanoliter samples using Schottky junctions. <i>Journal of Applied Physics</i> , 2007, 101, 034512.	1.1	7
129	Topological Transitions of Gapless Paired States in Mixed-Geometry Lattices. <i>Physical Review Letters</i> , 2013, 110, 055301.	2.9	7
130	Turning the challenge of quantum biology on its head: biological control of quantum optical systems. <i>Faraday Discussions</i> , 2019, 216, 57-71.	1.6	7
131	Spin-Asymmetric Josephson Effect. <i>Physical Review Letters</i> , 2010, 105, 225301.	2.9	6
132	Density response of a trapped Fermi gas: A crossover from the pair vibration mode to the Goldstone mode. <i>Physical Review A</i> , 2011, 84, .	1.0	6
133	Surface plasmon effects on carbon nanotube field effect transistors. <i>Applied Physics Letters</i> , 2011, 99, 031105.	1.5	6
134	Collective excitations of a trapped Fermi gas at finite temperature. <i>Physical Review A</i> , 2014, 89, .	1.0	6
135	Measuring charge-based quantum bits by a superconducting single-electron transistor. <i>Physical Review B</i> , 2003, 68, .	1.1	5
136	Coexistence of pairing gaps in three-component Fermi gases. <i>New Journal of Physics</i> , 2011, 13, 055013.	1.2	5
137	Flat-band-induced non-Fermi-liquid behavior of multicomponent fermions. <i>Physical Review A</i> , 2021, 103, .	1.0	5
138	The Interferometer as an Optical Network. <i>Journal of Modern Optics</i> , 1995, 42, 1109-1121.	0.6	4
139	Cooper pair coherence in a superfluid Fermi gas of atoms. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2001, 34, 4763-4773.	0.6	4
140	Quasiparticles, coherence, and nonlinearity: Exact simulations of rf spectroscopy of strongly interacting one-dimensional Fermi gases. <i>Physical Review A</i> , 2008, 78, .	1.0	4
141	Collision of one dimensional (1D) spin polarized Fermi gases in an optical lattice. <i>European Physical Journal D</i> , 2011, 65, 91-98.	0.6	4
142	Decoherence of an impurity in a one-dimensional fermionic bath with mass imbalance. <i>Physical Review A</i> , 2016, 94, .	1.0	4
143	Excitations and impurity dynamics in a fermionic Mott insulator with nearest-neighbor interactions. <i>Physical Review B</i> , 2016, 93, .	1.1	4
144	Two-mode state reconstruction using photon chopping. <i>Journal of Modern Optics</i> , 1997, 44, 2395-2404.	0.6	3

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145	Fermi Condensates for Dynamic Imaging of Electromagnetic Fields. Physical Review Letters, 2009, 102, 165301.	2.9	3
146	Moving perturbation in a one-dimensional Fermi gas. Physical Review A, 2014, 90, .	1.0	3
147	Dynamical symmetry and pair tunneling in a one-dimensional Bose gas colliding with a mobile impurity. Physical Review A, 2015, 92, .	1.0	3
148	Finite number of measurements in optical homodyne tomography. Journal of Modern Optics, 1996, 43, 2437-2447.	0.6	2
149	From vacuum Rabi splitting towards stimulated emission with surface plasmon polaritons. , 2011, , .		2
150	Vacuum Rabi splitting for surface plasmon polaritons and Rhodamine 6G molecules. Proceedings of SPIE, 2011, , .	0.8	2
151	Spin-asymmetric Josephson plasma oscillations. Physical Review A, 2017, 95, .	1.0	2
152	Mark Stockman: Evangelist for Plasmonics. ACS Photonics, 2021, 8, 683-698.	3.2	2
153	Interaction-induced topological superconductivity in antiferromagnet-superconductor junctions. Physical Review Research, 2021, 3, .	1.3	2
154	Polarization and Phase Textures in Lattice Plasmon Condensates. Nano Letters, 2021, 21, 5262-5268.	4.5	2
155	Two-mode entanglement in passive networks. Journal of Modern Optics, 1997, 44, 875-882.	0.6	1
156	Bakhtiari, Leskinen, and TÄJRMÄ Reply:. Physical Review Letters, 2009, 102, .	2.9	1
157	Tunable critical supercurrent and spin-asymmetric Josephson effect in superlattices. Physical Review B, 2014, 89, .	1.1	1
158	Topological states with broken translational and time-reversal symmetries in a honeycomb-triangular lattice. Physical Review A, 2015, 91, .	1.0	1
159	Possible insulator-pseudogap crossover in the attractive Hubbard model on the Lieb lattice. Physical Review B, 2021, 103, .	1.1	1
160	Guiding and reflecting light by boundary material. Optics Communications, 2005, 244, 147-152.	1.0	0
161	Pairing-based cooling of Fermi gases. Physical Review A, 2007, 76, .	1.0	0
162	Nanoantenna structures for strong coupling studies of surface plasmon polaritons and quantum dots. , 2012, , .		0