

# Caio H Lewenkopf

## List of Publications by Year in descending order

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106  
papers

3,416  
citations

147801

31  
h-index

155660

55  
g-index

107  
all docs

107  
docs citations

107  
times ranked

2399  
citing authors

#	ARTICLE	IF	CITATIONS
1	Conductance quantization and transport gaps in disordered graphene nanoribbons. <i>Physical Review B</i> , 2009, 79, .	3.2	307
2	Distribution of eigenmodes in a superconducting stadium billiard with chaotic dynamics. <i>Physical Review Letters</i> , 1992, 69, 1296-1299.	7.8	238
3	The recursive Green's function method for graphene. <i>Journal of Computational Electronics</i> , 2013, 12, 203-231.	2.5	197
4	Stochastic versus semiclassical approach to quantum chaotic scattering. <i>Annals of Physics</i> , 1991, 212, 53-83.	2.8	188
5	Disorder and electronic transport in graphene. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 273201.	1.8	143
6	Numerical studies of conductivity and Fano factor in disordered graphene. <i>Physical Review B</i> , 2008, 77, .	3.2	126
7	Measuring the Lyapunov exponent using quantum mechanics. <i>Physical Review E</i> , 2002, 65, 046209.	2.1	90
8	Interacting Electrons in Mesoscopic Rings. <i>Europhysics Letters</i> , 1993, 22, 193-198.	2.0	88
9	Quantum Transport through Ballistic Cavities: Soft vs Hard Quantum Chaos. <i>Physical Review Letters</i> , 2000, 84, 5504-5507.	7.8	80
10	Distribution of Reflection Coefficients in Absorbing Chaotic Microwave Cavities. <i>Physical Review Letters</i> , 2003, 91, 174102.	7.8	80
11	A tight-binding model for MoS <sub>2</sub> monolayers. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 365501.	1.8	74
12	Chaos in a spin-boson system: Classical analysis. <i>Annals of Physics</i> , 1992, 216, 291-312.	2.8	63
13	Crossover from Orthogonal to Unitary Symmetry for Ballistic Electron Transport in Chaotic Microstructures. <i>Annals of Physics</i> , 1995, 243, 1-64.	2.8	53
14	Coulomb Blockade Peak Spacing Fluctuations in Deformable Quantum Dots: A Further Test of Random Matrix Theory. <i>Physical Review Letters</i> , 1998, 81, 677-680.	7.8	52
15	Suppression of Weak Localization Due to Magnetic Flux in Few-Channel Ballistic Microstructures. <i>Physical Review Letters</i> , 1994, 73, 2115-2118.	7.8	50
16	Universal transport properties of open microwave cavities with and without time-reversal symmetry. <i>Physical Review E</i> , 2005, 71, 016223.	2.1	48
17	Statistical Distributions of Level Widths and Conductance Peaks in Irregularly Shaped Quantum Dots. <i>Physical Review Letters</i> , 1995, 75, 3922-3925.	7.8	47
18	Coherent versus Sequential Electron Tunneling in Quantum Dots. <i>Physical Review Letters</i> , 2003, 91, 116801.	7.8	47

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19	Toward Realistic Amorphous Topological Insulators. Nano Letters, 2019, 19, 8941-8946.	9.1	44
20	Parametric conductance correlation for irregularly shaped quantum dots. Physical Review B, 1996, 53, 9968-9983.	3.2	43
21	Excitonic structure of the optical conductivity in $\text{MoS}_2$ monolayers. Physical Review B, 2018, 97, .		
22	Landauer-Büttiker Approach to Strongly Coupled Quantum Thermodynamics: Inside-Outside Duality of Entropy Evolution. Physical Review Letters, 2018, 120, 107701.	7.8	38
23	Semiclassical magnetotransport in graphene $n$ - $p$ junctions. Physical Review B, 2011, 84, .	3.2	37
24	Particle-Spin Coupling in a Chaotic System: Localization-Delocalization in the Husimi Distributions. Europhysics Letters, 1991, 15, 125-131.	2.0	36
25	Microwave scattering in an irregularly shaped cavity: Random-matrix analysis. Physical Review A, 1992, 45, 2635-2636.	2.5	36
26	Level statistics transitions in the spin-boson model. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 155, 113-116.	2.1	35
27	Strain-displacement relations for strain engineering in single-layer 2d materials. 2D Materials, 2016, 3, 011005.	4.4	35
28	Edge magnetization and local density of states in chiral graphene nanoribbons. Physical Review B, 2014, 89, .	3.2	34
29	Gauge fields in graphene with nonuniform elastic deformations: A quantum field theory approach. Physical Review B, 2015, 92, .	3.2	32
30	Effects of a random gauge field on the conductivity of graphene sheets with disordered ripples. Physical Review B, 2015, 91, .	3.2	32
31	Fano resonances in the conductance of quantum dots with mixed dynamics. Physical Review B, 2008, 77, .	3.2	31
32	Graphene $n$ - $p$ junction in a strong magnetic field: A semiclassical study. Physical Review B, 2010, 81, .		
33	Stable deformations in large metallic clusters. Physical Review Letters, 1993, 71, 4130-4133.	7.8	30
34	Electronic transport in disordered $\text{MoS}_2$ nanoribbons. Physical Review B, 2017, 95, .	3.2	30
35	Adiabatic charge pumping through quantum dots in the Coulomb blockade regime. Physical Review B, 2009, 80, .	3.2	28
36	Conductance Peaks in Open Quantum Dots. Physical Review Letters, 2011, 107, 176807.	7.8	27

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37	Single and multiple giant resonances: Counterplay of collective and chaotic dynamics. Nuclear Physics A, 1994, 569, 183-193.	1.5	26
38	Sign correlations in parity-violating compound-nucleus reactions. Physical Review C, 1992, 46, 2601-2609.	2.9	24
39	Transmission fluctuations in chaotic microwave billiards with and without time-reversal symmetry. Physical Review E, 2001, 64, 065201.	2.1	24
40	Collective electronic excitations and their damping in small alkali clusters. Chemical Physics Letters, 1993, 205, 521-528.	2.6	23
41	Nonadiabatic electron pumping through interacting quantum dots. Physical Review B, 2012, 85, .	3.2	23
42	Husimi distributions of a spin-boson system and the signatures of its classical dynamics. Annals of Physics, 1992, 216, 313-322.	2.8	22
43	Quantum time delay in chaotic scattering: a semiclassical approach. Journal of Physics A, 1998, 31, 4885-4897.	1.6	22
44	Finite-difference method for transport of two-dimensional massless Dirac fermions in a ribbon geometry. Physical Review B, 2012, 86, .	3.2	22
45	Impurity invisibility in graphene: Symmetry guidelines for the design of efficient sensors. Physical Review B, 2016, 94, .	3.2	22
46	Time-dependent resonant tunneling transport: Keldysh and Kadanoff-Baym nonequilibrium Green's functions in an analytically soluble problem. Physical Review B, 2017, 95, .	3.2	22
47	Fragmentation of gold projectiles with energies of 200â€“980 MeV/nucleon. II. Multiplicity distributions and correlations. Physical Review C, 1991, 44, 1065-1076.	2.9	21
48	Statistical fluctuations of pumping and rectification currents in quantum dots. Physical Review B, 2004, 69, .	3.2	21
49	Limits of level-spacing fluctuations as a characterization of quantum chaos. Physical Review A, 1990, 42, 2431-2433.	2.5	20
50	Temperature Dependence of the Optical Response of Small Sodium Clusters. Europhysics Letters, 1995, 31, 519-524.	2.0	20
51	Nonlinear Conductance in a Ballistic Aharonov-Bohm Ring. Physical Review Letters, 2009, 103, 166801.	7.8	19
52	Disorder-mediated Kondo effect in graphene. Physical Review B, 2014, 90, .	3.2	19
53	Kondo temperature for a quantum dot in an Aharonov-Bohm ring. Physical Review B, 2005, 71, .	3.2	17
54	Coulomb charging energy of vacancy-induced states in graphene. Physical Review B, 2016, 94, .	3.2	17

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55	Efficient method for computing the electronic transport properties of a multiterminal system. Physical Review B, 2018, 97, .	3.2	17
56	Generalized local approximation to the exchange potential. Physical Review B, 1995, 52, 16476-16485.	3.2	16
57	Conductance Fluctuations and Weak Localization in Chaotic Quantum Dots. Physical Review Letters, 2002, 88, 256805.	7.8	16
58	Structural and electronic properties of realistic two-dimensional amorphous topological insulators. 2D Materials, 2021, 8, 025032.	4.4	16
59	On the semiclassical theory for universal transmission fluctuations in chaotic systems: the importance of unitarity. Journal of Physics A, 2001, 34, 2713-2721.	1.6	15
60	Open orbits and the semiclassical dwell time. Journal of Physics A, 2004, 37, 131-136.	1.6	15
61	Multi-scale approach for strain-engineering of phosphorene. Journal of Physics Condensed Matter, 2017, 29, 185702.	1.8	15
62	LÃ©vy diffusion and classes of universal parametric correlations. Physical Review E, 1996, 53, 2283-2286.	2.1	14
63	Signatures of chaos in the statistical distribution of conductance peaks in quantum dots. Physical Review B, 1997, 55, 7749-7760.	3.2	14
64	Coulomb-blockade conductance-peak-height fluctuations in quantum dots and the independent-particle model. Physical Review B, 1999, 60, 13682-13694.	3.2	14
65	Orthogonality catastrophe in parametric random matrices. Physical Review B, 2002, 65, .	3.2	14
66	Disorder effects of vacancies on the electronic transport properties of realistic topological insulator nanoribbons: The case of bismuthene. Physical Review Materials, 2021, 5, .	2.4	14
67	Amorphous $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \text{Bi} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle 2 \langle \text{mml:mi} \rangle \rangle \rangle$ structural, electronic, and topological nature from first principles. Physical Review B, 2021, 104, .		
68	Semiclassical limit of universal parametric density correlations. Physical Review E, 1998, 58, 5693-5703.	2.1	13
69	Effects of disorder range and electronic energy on the perfect transmission in graphene nanoribbons. Physical Review B, 2012, 86, .	3.2	13
70	Quantum electronic transport: Linear and nonlinear conductance from the Keldysh approach. Physica A: Statistical Mechanics and Its Applications, 2007, 385, 148-160.	2.6	12
71	Generalized correlation functions for conductance fluctuations and the mesoscopic spin Hall effect. Physical Review B, 2012, 86, .	3.2	12
72	Chaotic scattering: A toy model for the compound nucleus. Physical Review Letters, 1992, 68, 3511-3514.	7.8	11

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73	Correlated random hopping disorder in graphene at high magnetic fields: Landau level broadening and localization properties. <i>Physical Review B</i> , 2011, 84, .	3.2	11
74	Disorder-assisted transmission due to charge puddles in monolayer graphene: Transmission enhancement and local currents. <i>Physical Review B</i> , 2016, 93, .	3.2	11
75	Parametric correlation of coulomb blockade conductance peaks in chaotic quantum dots. <i>Physica Scripta</i> , 1997, T69, 13-16.	2.5	10
76	Semiclassical spatial correlations in chaotic wave functions. <i>Physical Review E</i> , 2002, 65, 036201.	2.1	10
77	Classical-quantum correspondence for the scattering dwell time. <i>Physical Review E</i> , 2004, 70, 036214.	2.1	10
78	Conductance and Kondo Interference beyond Proportional Coupling. <i>Physical Review Letters</i> , 2017, 119, 116801.	7.8	10
79	Tight-binding model for the band dispersion in rhombohedral topological insulators over the whole Brillouin zone. <i>Physical Review B</i> , 2018, 98, .	3.2	10
80	An order N numerical method to efficiently calculate the transport properties of large systems: An algorithm optimized for sparse linear solvers. <i>Journal of Computational Physics</i> , 2019, 394, 440-455.	3.8	10
81	Nonlinear electronic transport in nanoscopic devices: nonequilibrium Greenâ€™s functions versus scattering approach. <i>European Physical Journal B</i> , 2013, 86, 1.	1.5	9
82	Multiple scattering in random colour fields. <i>Nuclear Physics A</i> , 1990, 518, 297-302.	1.5	8
83	Decay of the Loschmidt echo in a time-dependent environment. <i>Physical Review E</i> , 2006, 74, 026207.	2.1	8
84	Phononic heat transport in nanomechanical structures: steady-state and pumping. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 435202.	2.1	8
85	Quantitative comparison of Anderson impurity solvers applied to transport in quantum dots. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 095602.	1.8	8
86	Orbital magnetic properties of quantum dots: The role of electron-electron interactions. <i>Physical Review B</i> , 2004, 69, .	3.2	6
87	g-factors and discrete energy level velocities in nanoparticles. <i>Physical Review B</i> , 2006, 74, .	3.2	5
88	A 50/50 electronic beam splitter in graphene nanoribbons as a building block for electron optics. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 505303.	1.8	5
89	Tunable spin-polarized edge transport in inverted quantum-well junctions. <i>Physical Review B</i> , 2017, 96, .	3.2	5
90	Spin relaxation in disordered graphene: Interplay between puddles and defect-induced magnetism. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 128, 169-178.	4.0	5

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91	Disorder information from conductance: A quantum inverse problem. <i>Physical Review B</i> , 2020, 102, .	3.2	5
92	Universal versus non-universal features in electronic ballistic transport. <i>Chaos, Solitons and Fractals</i> , 1997, 8, 1047-1056.	5.1	4
93	Fractal conductance fluctuations in electron billiards: a random matrix theory approach. <i>Brazilian Journal of Physics</i> , 2006, 36, 379-382.	1.4	4
94	Spin pumping with quantum dots. <i>International Journal of Nanotechnology</i> , 2007, 4, 482.	0.2	4
95	On resumming periodic orbits in the spectra of integrable systems. <i>Journal of Physics A</i> , 2002, 35, 10629-10642.	1.6	3
96	Fabry-Pérot resonant vortices and magnetoconductance in topological insulator constrictions with magnetic barriers. <i>Physical Review B</i> , 2021, 103, .	3.2	3
97	Local equilibrium charge and spin currents in two-dimensional topological systems. <i>Physical Review B</i> , 2022, 105, .	3.2	2
98	Suppression of Weak Localization due to Magnetic Flux in Few-Channel Ballistic Microstructures. <i>Physical Review Letters</i> , 1995, 74, 1258-1258.	7.8	1
99	A model for dephasing in quantum dots. <i>Chaos, Solitons and Fractals</i> , 2003, 16, 449-456.	5.1	1
100	Disordered Si:P nanostructures as switches and wires for nanodevices. <i>Physical Review B</i> , 2019, 99, .	3.2	1
101	Mesoscopic Fluctuations: Nuclei, Quantum Dots, and Beyond. <i>Brazilian Journal of Physics</i> , 2021, 51, 263-268.	1.4	1
102	One-quasiparticle coupling to a Bohr core. <i>Physical Review C</i> , 1990, 41, 2457-2459.	2.9	0
103	Distribution of the conductance peak height parametric derivatives in the Coulomb-blockade regime. <i>Physical Review B</i> , 2000, 61, R5093-R5096.	3.2	0
104	Conductance fluctuations in Coulomb-blockaded dots: from the sequential theory to a quantum coherent description. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 22, 526-529.	2.7	0
105	19 <sup>th</sup> LNLS User's Meeting and 1 <sup>st</sup> LNLS-2 Workshop. <i>Synchrotron Radiation News</i> , 2009, 22, 41-41.	0.8	0
106	Spatial mapping of disordered 2D systems: The conductance Sudoku. <i>Carbon</i> , 2021, 188, 360-360.	10.3	0