

Yigal Meir

List of Publications by Year in descending order

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133
papers

12,901
citations

53660

45
h-index

22764

112
g-index

139
all docs

139
docs citations

139
times ranked

6607
citing authors

#	ARTICLE	IF	CITATIONS
1	Landauer formula for the current through an interacting electron region. Physical Review Letters, 1992, 68, 2512-2515.	2.9	2,569
2	Time-dependent transport in interacting and noninteracting resonant-tunneling systems. Physical Review B, 1994, 50, 5528-5544.	1.1	1,695
3	Low-temperature transport through a quantum dot: The Anderson model out of equilibrium. Physical Review Letters, 1993, 70, 2601-2604.	2.9	857
4	Transport through a strongly interacting electron system: Theory of periodic conductance oscillations. Physical Review Letters, 1991, 66, 3048-3051.	2.9	639
5	Anderson model out of equilibrium: Noncrossing-approximation approach to transport through a quantum dot. Physical Review B, 1994, 49, 11040-11052.	1.1	492
6	van der Waals Energies in Density Functional Theory. Physical Review Letters, 1998, 80, 4153-4156.	2.9	474
7	Transport spectroscopy of a Coulomb island in the quantum Hall regime. Physical Review Letters, 1991, 66, 1926-1929.	2.9	367
8	Time-dependent transport through a mesoscopic structure. Physical Review B, 1993, 48, 8487-8490.	1.1	313
9	Nature of the superconductor-insulator transition in disordered superconductors. Nature, 2007, 449, 876-880.	13.7	301
10	Dynamic structures in Escherichia coli: Spontaneous formation of MinE rings and MinD polar zones. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 12724-12728.	3.3	258
11	Geometric Implementation of Hypercubic Lattices with Noninteger Dimensionality by Use of Low Lacunarity Fractal Lattices. Physical Review Letters, 1983, 50, 145-148.	2.9	227
12	Kondo Model for the ≈ 0.7 Anomaly in Transport through a Quantum Point Contact. Physical Review Letters, 2002, 89, 196802.	2.9	212
13	Effects of quantum levels on transport through a Coulomb island. Physical Review B, 1993, 47, 10020-10023.	1.1	211
14	Electronic Correlations in Transport through Coupled Quantum Dots. Physical Review Letters, 1999, 82, 3508-3511.	2.9	198
15	Chemosensing in Escherichia coli: Two regimes of two-state receptors. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 1786-1791.	3.3	181
16	Universal effects of spin-orbit scattering in mesoscopic systems. Physical Review Letters, 1989, 63, 798-800.	2.9	175
17	Dephasing and the Orthogonality Catastrophe in Tunneling through a Quantum Dot: The Which Path? Interferometer. Physical Review Letters, 1997, 79, 3740-3743.	2.9	155
18	Percolation-Type Description of the Metal-Insulator Transition in Two Dimensions. Physical Review Letters, 1999, 83, 3506-3509.	2.9	150

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19	Magnetic impurity formation in quantum point contacts. <i>Nature</i> , 2006, 442, 900-903.	13.7	147
20	How Long Does It Take for the Kondo Effect to Develop?. <i>Physical Review Letters</i> , 1999, 83, 808-811.	2.9	129
21	Local Moment Formation in Quantum Point Contacts. <i>Physical Review Letters</i> , 2003, 90, 026804.	2.9	123
22	Series study of percolation moments in general dimension. <i>Physical Review B</i> , 1990, 41, 9183-9206.	1.1	111
23	Many-body coherence effects in conduction through a quantum dot in the fractional quantum Hall regime. <i>Physical Review B</i> , 1992, 46, 4681-4692.	1.1	105
24	Condensation and localization of the partitioning protein ParB on the bacterial chromosome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 8809-8814.	3.3	96
25	Verticalization of bacterial biofilms. <i>Nature Physics</i> , 2018, 14, 954-960.	6.5	92
26	Resistance fluctuations in randomly diluted networks. <i>Physical Review B</i> , 1987, 35, 3524-3535.	1.1	79
27	Probing the Kondo Density of States in a Three-Terminal Quantum Ring. <i>Physical Review Letters</i> , 2005, 95, 126603.	2.9	79
28	Shot Noise through a Quantum Dot in the Kondo Regime. <i>Physical Review Letters</i> , 2002, 88, 116802.	2.9	71
29	Thermal Robustness of Signaling in Bacterial Chemotaxis. <i>Cell</i> , 2011, 145, 312-321.	13.5	70
30	Self-avoiding walks on diluted networks. <i>Physical Review Letters</i> , 1989, 63, 2819-2822.	2.9	66
31	Odd and even Kondo effects from emergent localization in quantum point contacts. <i>Nature</i> , 2013, 501, 79-83.	13.7	65
32	Composite edge states in the $\hat{\nu}=2/3$ fractional quantum Hall regime. <i>Physical Review Letters</i> , 1994, 72, 2624-2627.	2.9	64
33	Low-concentration series in general dimension. <i>Journal of Statistical Physics</i> , 1990, 58, 511-538.	0.5	63
34	Coulomb interactions and energy-level spectrum of a small electron gas. <i>Physica B: Condensed Matter</i> , 1993, 189, 70-79.	1.3	62
35	Variable sizes of <i>Escherichia coli</i> chemoreceptor signaling teams. <i>Molecular Systems Biology</i> , 2008, 4, 211.	3.2	62
36	Edge Reconstruction in the $\hat{\nu}=2/3$ Fractional Quantum Hall State. <i>Physical Review Letters</i> , 2013, 111, 246803.	2.9	62

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37	Kondo physics in the single-electron transistor with ac driving. <i>Physical Review B</i> , 2000, 61, 2146-2150.	1.1	61
38	Series analysis of randomly diluted nonlinear resistor networks. <i>Physical Review B</i> , 1986, 34, 3424-3428.	1.1	57
39	Series expansions for the Ising spin glass in general dimension. <i>Physical Review B</i> , 1991, 43, 11249-11273.	1.1	54
40	Universal Crossover between Efros-Shklovskii and Mott Variable-Range-Hopping Regimes. <i>Physical Review Letters</i> , 1996, 77, 5265-5267.	2.9	54
41	Delocalization Transition in Two-Dimensional Quantum Percolation. <i>Europhysics Letters</i> , 1989, 10, 275-278.	0.7	53
42	Spontaneous Breakdown of Topological Protection in Two Dimensions. <i>Physical Review Letters</i> , 2017, 118, 046801.	2.9	52
43	Decoding the physical principles of two-component biomolecular phase separation. <i>ELife</i> , 2021, 10, .	2.8	52
44	Microbial consortia at steady supply. <i>ELife</i> , 2017, 6, .	2.8	52
45	Theory of the magnetoresistance of disordered superconducting films. <i>Physical Review B</i> , 2006, 73, .	1.1	50
46	Concerted 2-5A-Mediated mRNA Decay and Transcription Reprogram Protein Synthesis in the dsRNA Response. <i>Molecular Cell</i> , 2019, 75, 1218-1228.e6.	4.5	50
47	Mechanical Frustration of Phase Separation in the Cell Nucleus by Chromatin. <i>Physical Review Letters</i> , 2021, 126, 258102.	2.9	50
48	Spin-orbit scattering for localized electrons: Absence of negative magnetoconductance. <i>Physical Review Letters</i> , 1991, 66, 1517-1520.	2.9	47
49	Mechanism of bidirectional thermotaxis in <i>Escherichia coli</i> . <i>ELife</i> , 2017, 6, .	2.8	47
50	Magnetic-field and spin-orbit interaction in restricted geometries: Solvable models. <i>Physical Review B</i> , 1990, 42, 8351-8360.	1.1	46
51	Dynamics of Cooperativity in Chemical Sensing among Cell-Surface Receptors. <i>Physical Review Letters</i> , 2011, 107, 178101.	2.9	45
52	Conductance through a quantum dot in the fractional quantum Hall regime. <i>Physical Review B</i> , 1992, 45, 9489-9492.	1.1	42
53	Rigidity enhances a magic-number effect in polymer phase separation. <i>Nature Communications</i> , 2020, 11, 1561.	5.8	42
54	Non-Local Interaction via Diffusible Resource Prevents Coexistence of Cooperators and Cheaters in a Lattice Model. <i>PLoS ONE</i> , 2013, 8, e63304.	1.1	37

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55	How to measure the entropy of a mesoscopic system via thermoelectric transport. Nature Communications, 2019, 10, 5801.	5.8	37
56	Spin-orbit scattering and the Kondo effect. Physical Review B, 1994, 50, 4947-4950.	1.1	36
57	Nutrient levels and trade-offs control diversity in a serial dilution ecosystem. ELife, 2020, 9, .	2.8	36
58	Chemical Sensing by Nonequilibrium Cooperative Receptors. Physical Review Letters, 2013, 110, 248102.	2.9	35
59	Precision and Kinetics of Adaptation in Bacterial Chemotaxis. Biophysical Journal, 2010, 99, 2766-2774.	0.2	34
60	Comment on "2-Channel Kondo Scaling in Conductance Signals from 2-Level Tunneling Systems". Physical Review Letters, 1995, 75, 769-769.	2.9	33
61	Two-species percolation and scaling theory of the metal-insulator transition in two dimensions. Physical Review B, 2000, 61, 16470-16476.	1.1	30
62	Diffusion on percolating clusters. Physical Review B, 1987, 36, 8752-8764.	1.1	27
63	Unifying Model for Several Classes of Two-Dimensional Phase Transition. Physical Review Letters, 2005, 94, 156406.	2.9	27
64	Kondo effect and spin-orbit coupling in graphene quantum dots. Nature Communications, 2021, 12, 6004.	5.8	27
65	Quantum Percolation in Magnetic Fields. Physical Review Letters, 1986, 56, 976-979.	2.9	25
66	Effects of spin-orbit scattering in mesoscopic rings: Canonical- versus grand-canonical-ensemble averaging. Physical Review B, 1992, 45, 11890-11895.	1.1	25
67	Fractional Entropy of Multichannel Kondo Systems from Conductance-Charge Relations. Physical Review Letters, 2022, 128, 146803.	2.9	24
68	Band of Critical States in Anderson Localization in a Strong Magnetic Field with Random Spin-Orbit Scattering. Physical Review Letters, 2015, 114, 096803.	2.9	23
69	Symmetric inseparability and number entanglement in charge-conserving mixed states. Physical Review A, 2022, 105, .	1.0	23
70	Series study of random animals in general dimensions. Physical Review B, 1988, 38, 4941-4954.	1.1	22
71	Universal spin-induced magnetoresistance in the variable-range hopping regime. Europhysics Letters, 1996, 33, 471-476.	0.7	22
72	Evidence for localization and 0.7 anomaly in hole quantum point contacts. Europhysics Letters, 2010, 91, 67010.	0.7	22

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73	Island formation in disordered superconducting thin films at finite magnetic fields. <i>Physical Review B</i> , 2008, 78, .	1.1	21
74	Random matrix theory of transition strengths and universal magnetoconductance in the strongly localized regime. <i>Physical Review Letters</i> , 1993, 70, 1988-1991.	2.9	19
75	Recursive enumeration of clusters in general dimension on hypercubic lattices. <i>Physical Review A</i> , 1987, 36, 1840-1848.	1.0	18
76	Thermal phase transition in two-dimensional disordered superconductors. <i>Europhysics Letters</i> , 2010, 91, 47003.	0.7	18
77	An experimental test of the geodesic rule proposition for the noncyclic geometric phase. <i>Science Advances</i> , 2020, 6, eaay8345.	4.7	17
78	Dynamic Structure Factor of a Deterministic Fractal. <i>Europhysics Letters</i> , 1988, 7, 249-253.	0.7	16
79	Auger-spectroscopy in quantum Hall edge channels and the missing energy problem. <i>Nature Communications</i> , 2019, 10, 3915.	5.8	16
80	Nonmonotonic thermoelectric currents and energy harvesting in interacting double quantum dots. <i>Physical Review B</i> , 2019, 99, .	1.1	16
81	Quantum Hall criticality, superconductor-insulator transition, and quantum percolation. <i>Physical Review B</i> , 2005, 71, .	1.1	14
82	Suppression of Shot Noise in Quantum Point Contacts in the $\nu=0.7$ Regime. <i>Physical Review Letters</i> , 2006, 97, 186801.	2.9	14
83	Absence of localization in disordered two-dimensional electron gas at weak magnetic field and strong spin-orbit coupling. <i>Scientific Reports</i> , 2016, 6, 33304.	1.6	14
84	The theory of the $\nu=0.7$ anomaly in quantum point contacts. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 164208.	0.7	13
85	Breaking of phase symmetry in nonequilibrium Aharonov-Bohm oscillations through a quantum dot. <i>Physical Review B</i> , 2009, 80, .	1.1	13
86	Proposed Measurement of Spatial Correlations at the Berezinski-Kosterlitz-Thouless Transition of Superconducting Thin Films. <i>Physical Review Letters</i> , 2013, 111, 187002.	2.9	13
87	Abrupt disappearance and re-emergence of the SU(4) and SU(2) Kondo effects due to population inversion. <i>Physical Review B</i> , 2017, 96, .	1.1	13
88	Series analysis of randomly diluted nonlinear networks with negative nonlinearity exponent. <i>Physical Review B</i> , 1987, 36, 3950-3952.	1.1	12
89	Averaging of multifractals. <i>Physical Review A</i> , 1988, 37, 596-600.	1.0	12
90	Directed percolation in 3+1 dimensions. <i>Physical Review B</i> , 1988, 37, 7529-7533.	1.1	12

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91	Dilute random-field Ising models and uniform-field antiferromagnets. <i>Physical Review B</i> , 1985, 32, 3203-3213.	1.1	11
92	Quantum Hall effect in three-dimensional layered systems. <i>Physical Review B</i> , 1998, 58, R1762-R1765.	1.1	11
93	From the zero-field metal-insulator transition in two dimensions to the quantum Hall transition: A percolation-effective-medium theory. <i>Physical Review B</i> , 2001, 63, .	1.1	11
94	Charge Rearrangement and Screening in a Quantum Point Contact. <i>Physical Review Letters</i> , 2007, 98, 196805.	2.9	11
95	Time-dependent transport in mesoscopic systems: general formalism and applications. <i>Semiconductor Science and Technology</i> , 1994, 9, 926-929.	1.0	10
96	New Spin-Orbit-Induced Universality Class in the Integer Quantum Hall Regime. <i>Physical Review Letters</i> , 2002, 89, 076602.	2.9	10
97	Large Tunable Thermophase in Superconductor "Quantum Dot" Superconductor Josephson Junctions. <i>Scientific Reports</i> , 2016, 6, 35116.	1.6	10
98	Motif-pattern dependence of biomolecular phase separation driven by specific interactions. <i>PLoS Computational Biology</i> , 2021, 17, e1009748.	1.5	10
99	How to Measure the Transmission Phase through a Quantum Dot in a Two-Terminal Interferometer. <i>Physical Review Letters</i> , 2010, 104, 256801.	2.9	9
100	Vibration-Assisted and Vibration-Hampered Excitonic Quantum Transport. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3143-3148.	2.1	9
101	Effect of amplitude fluctuations on the Berezinskii-Kosterlitz-Thouless transition. <i>Physical Review B</i> , 2013, 88, .	1.1	8
102	Local current distribution and hot spots in the integer quantum Hall regime. <i>Physical Review B</i> , 2006, 74, .	1.1	7
103	Anti-levitation in integer quantum Hall systems. <i>Physical Review B</i> , 2014, 89, .	1.1	7
104	Reanalysis of "Dilute random-field Ising models and uniform-field antiferromagnets". <i>Physical Review B</i> , 1986, 34, 3469-3470.	1.1	6
105	Dilute spin glass at zero temperature in general dimension. <i>Physical Review B</i> , 1989, 40, 4824-4832.	1.1	6
106	Resistance distributions of the random resistor network near the percolation threshold. <i>Physical Review B</i> , 1990, 41, 4610-4618.	1.1	6
107	Phase switching in a voltage-biased Aharonov-Bohm interferometer. <i>Physical Review B</i> , 2008, 77, .	1.1	6
108	Continuous and reversible tuning of the disorder-driven superconductor-insulator transition in bilayer graphene. <i>Scientific Reports</i> , 2015, 5, 13466.	1.6	6

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109	Distribution of the logarithms of currents in percolating resistor networks. II. Series expansions. <i>Physical Review B</i> , 1993, 47, 5770-5782.	1.1	5
110	Percolation-type description of the metal-insulator transition in two dimensions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001, 302, 391-403.	1.2	5
111	Magneto-resistance anisotropy in amorphous superconducting thin films: Site-bond percolation approach. <i>Physical Review B</i> , 2015, 92, .	1.1	5
112	Quasiparticle Tunneling through a Barrier in the Fractional Quantum Hall Regime. <i>Physical Review Letters</i> , 2005, 95, 136803.	2.9	4
113	Quantum phase transition in a realistic double-quantum-dot system. <i>Scientific Reports</i> , 2018, 8, 10539.	1.6	4
114	Interaction-induced charge transfer in a mesoscopic electron spectrometer. <i>Physical Review B</i> , 2019, 100, .	1.1	4
115	piRNAs of <i>Caenorhabditis elegans</i> broadly silence nonself sequences through functionally random targeting. <i>Nucleic Acids Research</i> , 2022, 50, 1416-1429.	6.5	4
116	Viscous fingers on fractals. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1989, 157, 524-528.	1.2	3
117	Percolation in negative field and lattice animals. <i>Physical Review B</i> , 1989, 39, 649-656.	1.1	2
118	A VARIATIONAL GROUND-STATE FOR THE $\nu=2/3$ FRACTIONAL QUANTUM HALL REGIME. <i>International Journal of Modern Physics B</i> , 1996, 10, 1425-1437.	1.0	2
119	Luttinger-Liquid Behavior in Tunneling through a Quantum Dot at Zero Magnetic Field. <i>Physical Review Letters</i> , 2002, 89, 256401.	2.9	2
120	Time-dependent density functional theory of excitation energies of closed-shell quantum dots. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 22, 486-489.	1.3	2
121	Electronic transport in graphene nanostructures on SiO ₂ . <i>Solid State Communications</i> , 2012, 152, 1306-1310.	0.9	2
122	Enzyme regulation and mutation in a model serial-dilution ecosystem. <i>Physical Review E</i> , 2021, 104, 044412.	0.8	2
123	Diffusion on Percolation Clusters. , 1987, , 213-216.		2
124	Seminar 3 Transport through quantum point contacts. <i>Les Houches Summer School Proceedings</i> , 2005, , 479-493.	0.2	1
125	Superconducting islands, phase fluctuations and the superconductor-insulator transition. <i>Physica C: Superconductivity and Its Applications</i> , 2008, 468, 354-357.	0.6	1
126	Controlled breaking of phase symmetry in a "Which-Path?" interferometer. <i>Journal of Physics: Conference Series</i> , 2009, 193, 012011.	0.3	1

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127	Stern-Gerlach Interferometry with the Atom Chip. , 2021, , 263-301.		1
128	PERCOLATION APPROACH TO THE METAL-INSULATOR TRANSITION IN TWO DIMENSIONS. International Journal of Modern Physics B, 2001, 15, 2641-2645.	1.0	0
129	Instability to Local Moment Formation in a Quantum Point Contact. Journal of the Physical Society of Japan, 2003, 72, 85-86.	0.7	0
130	Tunneling spectroscopy of disordered two-dimensional electron gas in the quantum Hall regime. Physical Review B, 2011, 84, .	1.1	0
131	Phase-coherent Electron Transport through Double Dots. , 2010, , 305-315.		0
132	Spin-Orbit Effects in Disordered Systems. NATO ASI Series Series B: Physics, 1991, , 91-97.	0.2	0
133	Hysteresis and jumps in the I - V curves of disordered two-dimensional materials. Physical Review B, 2022, 105, .		