

# Yigal Meir

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

130  
papers

11,445  
citations

43  
h-index

106  
g-index

139  
ext. papers

12,287  
ext. citations

7  
avg, IF

6.21  
L-index

#	Paper	IF	Citations
130	Fractional Entropy of Multichannel Kondo Systems from Conductance-Charge Relations.. <i>Physical Review Letters</i> , <b>2022</b> , 128, 146803	7.4	1
129	Enzyme regulation and mutation in a model serial-dilution ecosystem. <i>Physical Review E</i> , <b>2021</b> , 104, 044412	4.2	1
128	Kondo effect and spin-orbit coupling in graphene quantum dots. <i>Nature Communications</i> , <b>2021</b> , 12, 600417.4	17.4	5
127	Decoding the physical principles of two-component biomolecular phase separation. <i>ELife</i> , <b>2021</b> , 10,	8.9	13
126	Mechanical Frustration of Phase Separation in the Cell Nucleus by Chromatin. <i>Physical Review Letters</i> , <b>2021</b> , 126, 258102	7.4	7
125	Stern-Gerlach Interferometry with the Atom Chip <b>2021</b> , 263-301		0
124	Motif-pattern dependence of biomolecular phase separation driven by specific interactions.. <i>PLoS Computational Biology</i> , <b>2021</b> , 17, e1009748	5	1
123	An experimental test of the geodesic rule proposition for the noncyclic geometric phase. <i>Science Advances</i> , <b>2020</b> , 6, eaay8345	14.3	8
122	Rigidity enhances a magic-number effect in polymer phase separation. <i>Nature Communications</i> , <b>2020</b> , 11, 1561	17.4	21
121	Nutrient levels and trade-offs control diversity in a serial dilution ecosystem. <i>ELife</i> , <b>2020</b> , 9,	8.9	7
120	Author response: Nutrient levels and trade-offs control diversity in a serial dilution ecosystem <b>2020</b> ,		2
119	Auger-spectroscopy in quantum Hall edge channels and the missing energy problem. <i>Nature Communications</i> , <b>2019</b> , 10, 3915	17.4	7
118	Concerted 2-5A-Mediated mRNA Decay and Transcription Reprogram Protein Synthesis in the dsRNA Response. <i>Molecular Cell</i> , <b>2019</b> , 75, 1218-1228.e6	17.6	25
117	Nonmonotonic thermoelectric currents and energy harvesting in interacting double quantum dots. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	11
116	Interaction-induced charge transfer in a mesoscopic electron spectrometer. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	1
115	How to measure the entropy of a mesoscopic system via thermoelectric transport. <i>Nature Communications</i> , <b>2019</b> , 10, 5801	17.4	20
114	Quantum phase transition in a realistic double-quantum-dot system. <i>Scientific Reports</i> , <b>2018</b> , 8, 10539	4.9	3

113	Verticalization of bacterial biofilms. <i>Nature Physics</i> , <b>2018</b> , 14, 954-960	16.2	52
112	Vibration-Assisted and Vibration-Hampered Excitonic Quantum Transport. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 3143-3148	6.4	6
111	Spontaneous Breakdown of Topological Protection in Two Dimensions. <i>Physical Review Letters</i> , <b>2017</b> , 118, 046801	7.4	39
110	Abrupt disappearance and re-emergence of the SU(4) and SU(2) Kondo effects due to population inversion. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	10
109	Mechanism of bidirectional thermotaxis in. <i>ELife</i> , <b>2017</b> , 6,	8.9	34
108	Microbial consortia at steady supply. <i>ELife</i> , <b>2017</b> , 6,	8.9	32
107	Absence of localization in disordered two-dimensional electron gas at weak magnetic field and strong spin-orbit coupling. <i>Scientific Reports</i> , <b>2016</b> , 6, 33304	4.9	7
106	Large Tunable Thermophase in Superconductor - Quantum Dot - Superconductor Josephson Junctions. <i>Scientific Reports</i> , <b>2016</b> , 6, 35116	4.9	4
105	Magnetoresistance anisotropy in amorphous superconducting thin films: Site-bond percolation approach. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	5
104	Continuous and reversible tuning of the disorder-driven superconductor-insulator transition in bilayer graphene. <i>Scientific Reports</i> , <b>2015</b> , 5, 13466	4.9	5
103	Band of critical States in anderson localization in a strong magnetic field with random spin-orbit scattering. <i>Physical Review Letters</i> , <b>2015</b> , 114, 096803	7.4	16
102	Anti-levitation in integer quantum Hall systems. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	7
101	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> , <b>2014</b> , 111, 8809-14	11.5	70
100	Odd and even Kondo effects from emergent localization in quantum point contacts. <i>Nature</i> , <b>2013</b> , 501, 79-83	50.4	56
99	Effect of amplitude fluctuations on the Berezinskii-Kosterlitz-Thouless transition. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	6
98	Edge reconstruction in the $\nu=2/3$ fractional quantum Hall state. <i>Physical Review Letters</i> , <b>2013</b> , 111, 246803	7.4	44
97	Chemical sensing by nonequilibrium cooperative receptors. <i>Physical Review Letters</i> , <b>2013</b> , 110, 248102	7.4	30
96	Proposed measurement of spatial correlations at the Berezinski-Kosterlitz-Thouless transition of superconducting thin films. <i>Physical Review Letters</i> , <b>2013</b> , 111, 187002	7.4	10

95	Non-local interaction via diffusible resource prevents coexistence of cooperators and cheaters in a lattice model. <i>PLoS ONE</i> , <b>2013</b> , 8, e63304	3.7	27
94	Electronic transport in graphene nanostructures on SiO <sub>2</sub> . <i>Solid State Communications</i> , <b>2012</b> , 152, 1306-1310	1.6	2
93	Thermal robustness of signaling in bacterial chemotaxis. <i>Cell</i> , <b>2011</b> , 145, 312-21	56.2	61
92	Dynamics of cooperativity in chemical sensing among cell-surface receptors. <i>Physical Review Letters</i> , <b>2011</b> , 107, 178101	7.4	38
91	How to measure the transmission phase through a quantum dot in a two-terminal interferometer. <i>Physical Review Letters</i> , <b>2010</b> , 104, 256801	7.4	9
90	Thermal phase transition in two-dimensional disordered superconductors. <i>Europhysics Letters</i> , <b>2010</b> , 91, 47003	1.6	17
89	Evidence for localization and 0.7 anomaly in hole quantum point contacts. <i>Europhysics Letters</i> , <b>2010</b> , 91, 67010	1.6	21
88	Precision and kinetics of adaptation in bacterial chemotaxis. <i>Biophysical Journal</i> , <b>2010</b> , 99, 2766-74	2.9	28
87	Phase-coherent Electron Transport through Double Dots <b>2010</b> , 305-315		
86	Breaking of phase symmetry in nonequilibrium Aharonov-Bohm oscillations through a quantum dot. <i>Physical Review B</i> , <b>2009</b> , 80,	3.3	12
85	Controlled breaking of phase symmetry in a "Which-Path?" interferometer. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 193, 012011	0.3	1
84	The theory of the 0.7 anomaly in quantum point contacts. <i>Journal of Physics Condensed Matter</i> , <b>2008</b> , 20, 164208	1.8	13
83	Phase switching in a voltage-biased Aharonov-Bohm interferometer. <i>Physical Review B</i> , <b>2008</b> , 77,	3.3	5
82	Island formation in disordered superconducting thin films at finite magnetic fields. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	20
81	Variable sizes of Escherichia coli chemoreceptor signaling teams. <i>Molecular Systems Biology</i> , <b>2008</b> , 4, 211	12.2	58
80	Superconducting islands, phase fluctuations and the superconductor-insulator transition. <i>Physica C: Superconductivity and Its Applications</i> , <b>2008</b> , 468, 354-357	1.3	1
79	Nature of the superconductor-insulator transition in disordered superconductors. <i>Nature</i> , <b>2007</b> , 449, 876-80	50.4	246
78	Charge rearrangement and screening in a quantum point contact. <i>Physical Review Letters</i> , <b>2007</b> , 98, 196805	7.4	10

77	Chemosensing in Escherichia coli: two regimes of two-state receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 1786-91	11.5	160
76	Suppression of shot noise in quantum point contacts in the "0.7 regime". <i>Physical Review Letters</i> , <b>2006</b> , 97, 186801	7.4	13
75	Theory of the magnetoresistance of disordered superconducting films. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	44
74	Local current distribution and hot spots in the integer quantum Hall regime. <i>Physical Review B</i> , <b>2006</b> , 74,	3.3	6
73	Magnetic impurity formation in quantum point contacts. <i>Nature</i> , <b>2006</b> , 442, 900-3	50.4	132
72	Probing the Kondo density of states in a three-terminal quantum ring. <i>Physical Review Letters</i> , <b>2005</b> , 95, 126603	7.4	75
71	Seminar 3 Transport through quantum point contacts. <i>Les Houches Summer School Proceedings</i> , <b>2005</b> , 479-493		1
70	Quasiparticle tunneling through a barrier in the fractional quantum hall regime. <i>Physical Review Letters</i> , <b>2005</b> , 95, 136803	7.4	4
69	Quantum Hall criticality, superconductor-insulator transition, and quantum percolation. <i>Physical Review B</i> , <b>2005</b> , 71,	3.3	14
68	Unifying model for several classes of two-dimensional phase transition. <i>Physical Review Letters</i> , <b>2005</b> , 94, 156406	7.4	27
67	Time-dependent density functional theory of excitation energies of closed-shell quantum dots. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2004</b> , 22, 486-489	3	2
66	Instability to Local Moment Formation in a Quantum Point Contact. <i>Journal of the Physical Society of Japan</i> , <b>2003</b> , 72, 85-86	1.5	
65	Dynamic structures in Escherichia coli: spontaneous formation of MinE rings and MinD polar zones. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2003</b> , 100, 12724-8	11.5	221
64	Local moment formation in quantum point contacts. <i>Physical Review Letters</i> , <b>2003</b> , 90, 026804	7.4	118
63	New spin-orbit-induced universality class in the integer quantum Hall regime. <i>Physical Review Letters</i> , <b>2002</b> , 89, 076602	7.4	8
62	Luttinger-liquid behavior in tunneling through a quantum dot at zero magnetic field. <i>Physical Review Letters</i> , <b>2002</b> , 89, 256401	7.4	2
61	Shot noise through a quantum dot in the Kondo regime. <i>Physical Review Letters</i> , <b>2002</b> , 88, 116802	7.4	71
60	Kondo model for the "0.7 anomaly" in transport through a quantum point contact. <i>Physical Review Letters</i> , <b>2002</b> , 89, 196802	7.4	197

59	Percolation-type description of the metal-insulator transition in two dimensions. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2001</b> , 302, 391-403	3-3	5
58	PERCOLATION APPROACH TO THE METAL-INSULATOR TRANSITION IN TWO DIMENSIONS. <i>International Journal of Modern Physics B</i> , <b>2001</b> , 15, 2641-2645	1-1	
57	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> , <b>2001</b> , 63,	3-3	10
56	Kondo physics in the single-electron transistor with ac driving. <i>Physical Review B</i> , <b>2000</b> , 61, 2146-2150	3-3	57
55	Two-species percolation and scaling theory of the metal-insulator transition in two dimensions. <i>Physical Review B</i> , <b>2000</b> , 61, 16470-16476	3-3	29
54	Percolation-Type Description of the Metal-Insulator Transition in Two Dimensions. <i>Physical Review Letters</i> , <b>1999</b> , 83, 3506-3509	7-4	140
53	Electronic Correlations in Transport through Coupled Quantum Dots. <i>Physical Review Letters</i> , <b>1999</b> , 82, 3508-3511	7-4	195
52	How Long Does It Take for the Kondo Effect to Develop?. <i>Physical Review Letters</i> , <b>1999</b> , 83, 808-811	7-4	116
51	van der Waals Energies in Density Functional Theory. <i>Physical Review Letters</i> , <b>1998</b> , 80, 4153-4156	7-4	461
50	Quantum Hall effect in three-dimensional layered systems. <i>Physical Review B</i> , <b>1998</b> , 58, R1762-R1765	3-3	10
49	Dephasing and the Orthogonality Catastrophe in Tunneling through a Quantum Dot: The Which Path? Interferometer. <i>Physical Review Letters</i> , <b>1997</b> , 79, 3740-3743	7-4	143
48	Universal spin-induced magnetoresistance in the variable-range hopping regime. <i>Europhysics Letters</i> , <b>1996</b> , 33, 471-476	1-6	21
47	Universal Crossover between Efros-Shklovskii and Mott Variable-Range-Hopping Regimes. <i>Physical Review Letters</i> , <b>1996</b> , 77, 5265-5267	7-4	51
46	Comment on "2-channel Kondo scaling in conductance signals from 2-level tunneling systems". <i>Physical Review Letters</i> , <b>1995</b> , 75, 769	7-4	31
45	Spin-orbit scattering and the Kondo effect. <i>Physical Review B</i> , <b>1994</b> , 50, 4947-4950	3-3	34
44	Composite edge states in the $\nu = 2/3$ fractional quantum Hall regime. <i>Physical Review Letters</i> , <b>1994</b> , 72, 2624-2627	7-4	51
43	Time-dependent transport in interacting and noninteracting resonant-tunneling systems. <i>Physical Review B</i> , <b>1994</b> , 50, 5528-5544	3-3	1531
42	Time-dependent transport in mesoscopic systems: general formalism and applications. <i>Semiconductor Science and Technology</i> , <b>1994</b> , 9, 926-929	1-8	9

41	Anderson model out of equilibrium: Noncrossing-approximation approach to transport through a quantum dot. <i>Physical Review B</i> , <b>1994</b> , 49, 11040-11052	3.3	460
40	Time-dependent transport through a mesoscopic structure. <i>Physical Review B</i> , <b>1993</b> , 48, 8487-8490	3.3	283
39	Distribution of the logarithms of currents in percolating resistor networks. II. Series expansions. <i>Physical Review B</i> , <b>1993</b> , 47, 5770-5782	3.3	5
38	Random matrix theory of transition strengths and universal magnetoconductance in the strongly localized regime. <i>Physical Review Letters</i> , <b>1993</b> , 70, 1988-1991	7.4	19
37	Effects of quantum levels on transport through a Coulomb island. <i>Physical Review B</i> , <b>1993</b> , 47, 10020-10023	3.3	197
36	Coulomb interactions and energy-level spectrum of a small electron gas. <i>Physica B: Condensed Matter</i> , <b>1993</b> , 189, 70-79	2.8	55
35	Low-temperature transport through a quantum dot: The Anderson model out of equilibrium. <i>Physical Review Letters</i> , <b>1993</b> , 70, 2601-2604	7.4	797
34	Conductance through a quantum dot in the fractional quantum Hall regime. <i>Physical Review B</i> , <b>1992</b> , 45, 9489-9492	3.3	39
33	Many-body coherence effects in conduction through a quantum dot in the fractional quantum Hall regime. <i>Physical Review B</i> , <b>1992</b> , 46, 4681-4692	3.3	100
32	Effects of spin-orbit scattering in mesoscopic rings: Canonical- versus grand-canonical-ensemble averaging. <i>Physical Review B</i> , <b>1992</b> , 45, 11890-11895	3.3	23
31	Landauer formula for the current through an interacting electron region. <i>Physical Review Letters</i> , <b>1992</b> , 68, 2512-2515	7.4	2298
30	Spin-orbit scattering for localized electrons: Absence of negative magnetoconductance. <i>Physical Review Letters</i> , <b>1991</b> , 66, 1517-1520	7.4	46
29	Series expansions for the Ising spin glass in general dimension. <i>Physical Review B</i> , <b>1991</b> , 43, 11249-11273	3.3	52
28	Transport spectroscopy of a Coulomb island in the quantum Hall regime. <i>Physical Review Letters</i> , <b>1991</b> , 66, 1926-1929	7.4	360
27	Transport through a strongly interacting electron system: Theory of periodic conductance oscillations. <i>Physical Review Letters</i> , <b>1991</b> , 66, 3048-3051	7.4	613
26	Spin-Orbit Effects in Disordered Systems. <i>NATO ASI Series Series B: Physics</i> , <b>1991</b> , 91-97		
25	Low-concentration series in general dimension. <i>Journal of Statistical Physics</i> , <b>1990</b> , 58, 511-538	1.5	57
24	Magnetic-field and spin-orbit interaction in restricted geometries: Solvable models. <i>Physical Review B</i> , <b>1990</b> , 42, 8351-8360	3.3	41

23	Resistance distributions of the random resistor network near the percolation threshold. <i>Physical Review B</i> , <b>1990</b> , 41, 4610-4618	3.3	6
22	Series study of percolation moments in general dimension. <i>Physical Review B</i> , <b>1990</b> , 41, 9183-9206	3.3	103
21	Self-avoiding walks on diluted networks. <i>Physical Review Letters</i> , <b>1989</b> , 63, 2819-2822	7.4	66
20	Percolation in negative field and lattice animals. <i>Physical Review B</i> , <b>1989</b> , 39, 649-656	3.3	2
19	Dilute spin glass at zero temperature in general dimension. <i>Physical Review B</i> , <b>1989</b> , 40, 4824-4832	3.3	6
18	Viscous fingers on Fractals. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>1989</b> , 157, 524-528	3.3	3
17	Universal effects of spin-orbit scattering in mesoscopic systems. <i>Physical Review Letters</i> , <b>1989</b> , 63, 798-800	3.3	167
16	Delocalization Transition in Two-Dimensional Quantum Percolation. <i>Europhysics Letters</i> , <b>1989</b> , 10, 275-278	3.3	49
15	Averaging of multifractals. <i>Physical Review A</i> , <b>1988</b> , 37, 596-600	2.6	12
14	Directed percolation in 3+1 dimensions. <i>Physical Review B</i> , <b>1988</b> , 37, 7529-7533	3.3	12
13	Series study of random animals in general dimensions. <i>Physical Review B</i> , <b>1988</b> , 38, 4941-4954	3.3	22
12	Dynamic Structure Factor of a Deterministic Fractal. <i>Europhysics Letters</i> , <b>1988</b> , 7, 249-253	1.6	16
11	Diffusion on percolating clusters. <i>Physical Review B</i> , <b>1987</b> , 36, 8752-8764	3.3	25
10	Recursive enumeration of clusters in general dimension on hypercubic lattices. <i>Physical Review A</i> , <b>1987</b> , 36, 1840-1848	2.6	17
9	Series analysis of randomly diluted nonlinear networks with negative nonlinearity exponent. <i>Physical Review B</i> , <b>1987</b> , 36, 3950-3952	3.3	12
8	Resistance fluctuations in randomly diluted networks. <i>Physical Review B</i> , <b>1987</b> , 35, 3524-3535	3.3	72
7	Diffusion on Percolation Clusters <b>1987</b> , 213-216		
6	Series analysis of randomly diluted nonlinear resistor networks. <i>Physical Review B</i> , <b>1986</b> , 34, 3424-3428	3.3	52

5	Reanalysis of "Dilute random-field Ising models and uniform-field antiferromagnets". <i>Physical Review B</i> , <b>1986</b> , 34, 3469-3470	3.3	6
4	Quantum percolation in magnetic fields. <i>Physical Review Letters</i> , <b>1986</b> , 56, 976-979	7.4	24
3	Dilute random-field Ising models and uniform-field antiferromagnets. <i>Physical Review B</i> , <b>1985</b> , 32, 3203-3213	3.3	11
2	Geometric Implementation of Hypercubic Lattices with Noninteger Dimensionality by Use of Low Lacunarity Fractal Lattices. <i>Physical Review Letters</i> , <b>1983</b> , 50, 145-148	7.4	189
1	Sequence dependence of biomolecular phase separation		2