

# Shmuel Fishman

## List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Edge states of a three dimensional kicked rotor. European Physical Journal B, 2019, 92, 1.	1.5	2
2	Quantum correlations for a simple kicked system with mixed phase space. Physical Review E, 2018, 97, 062213.	2.1	0
3	Collapse and revival for a slightly anharmonic Hamiltonian. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2298-2304.	2.1	4
4	Numerical implementation of the multiscale and averaging methods for quasi periodic systems. Computer Physics Communications, 2017, 221, 235-245.	7.5	3
5	Universal exponent for transport in mixed Hamiltonian dynamics. Physical Review E, 2017, 96, 032204.	2.1	14
6	Ultracold atoms in quasi-one-dimensional traps: A step beyond the Lieb-Liniger model. Physical Review A, 2017, 95, .	2.5	6
7	Buckling Transitions and Clock Order of Two-Dimensional Coulomb Crystals. Physical Review X, 2016, 6, .	8.9	7
8	Slowly changing potential problems in Quantum Mechanics: Adiabatic theorems, ergodic theorems, and scattering. Journal of Mathematical Physics, 2016, 57, 072101.	1.1	2
9	A generalized Lieb-Liniger model. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 085205.	2.1	3
10	Soliton trapping in a disordered lattice. Physical Review E, 2015, 92, 012901.	2.1	5
11	Diffusion for ensembles of standard maps. Physical Review E, 2015, 92, 042904.	2.1	2
12	Soliton mobility in disordered lattices. Physical Review E, 2015, 92, 040903.	2.1	8
13	Semiclassical analysis of Bose-Hubbard dynamics. New Journal of Physics, 2015, 17, 053030.	2.9	27
14	Effects of interactions on the dynamics of driven cold atoms. Physica D: Nonlinear Phenomena, 2015, 300, 41-50.	2.8	2
15	Dynamics of a classical particle in a quasi periodic potential. European Physical Journal B, 2015, 88, 1.	1.5	0
16	Statistics of the island-around-island hierarchy in Hamiltonian phase space. Physical Review E, 2014, 90, 062923.	2.1	18
17	Simple model for interactions and corrections to the Gross-Pitaevskii equation. Physical Review A, 2014, 90, .	2.5	25
18	High order perturbation theory for nonlinear Anderson model. European Physical Journal B, 2014, 87, 1.	1.5	0

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19	Multiscale Time Averaging, Reloaded. SIAM Journal on Mathematical Analysis, 2014, 46, 1385-1405.	1.9	3
20	From classical to quantum criticality. Physical Review B, 2014, 89, .	3.2	16
21	Anderson localization in laser-kicked molecules. Physical Review A, 2013, 88, .	2.5	27
22	Dynamic localization of a weakly interacting Bose-Einstein condensate in an anharmonic potential. Physical Review A, 2013, 87, .	2.5	3
23	Wave-Particle Duality during Hyper-Transport of Light in Dynamic Disorder. , 2013, , .		0
24	Effective noise theory for the nonlinear Schrödinger equation with disorder. Physical Review E, 2012, 85, 046218.	2.1	21
25	Universality classes of transport in time-dependent random potentials. Physical Review E, 2012, 86, 030103.	2.1	6
26	Echoes and revival echoes in systems of anharmonically confined atoms. Physical Review A, 2012, 86, .	2.5	23
27	Hyper-transport of light and stochastic acceleration by evolving disorder. Nature Physics, 2012, 8, 912-917.	16.7	103
28	Transport in time-dependent random potentials. Physical Review E, 2012, 86, 051115.	2.1	3
29	Statistical properties of the one dimensional Anderson model relevant for the nonlinear Schrödinger equation in a random potential. European Physical Journal B, 2012, 85, 1.	1.5	0
30	Super-diffusion in optical realizations of Anderson localization. New Journal of Physics, 2012, 14, 043047.	2.9	31
31	The nonlinear Schrödinger equation with a random potential: results and puzzles. Nonlinearity, 2012, 25, R53-R72.	1.4	69
32	Hyper-Transport of Light by Virtue of Disorder. , 2011, , .		0
33	Eigenvalue repulsion estimates and some applications for the one-dimensional Anderson model. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 305206.	2.1	3
34	Quantum structural phase transition in chains of interacting atoms. Physical Review A, 2011, 83, .	2.5	33
35	Quantum Zigzag Transition in Ion Chains. Physical Review Letters, 2011, 106, 010401.	7.8	87
36	Scaling properties of weak chaos in nonlinear disordered lattices. Physical Review E, 2011, 83, 025201.	2.1	34

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37	Quantum chaos of a mixed open system of kicked cold atoms. <i>Physical Review E</i> , 2011, 83, 016204.	2.1	14
38	Disorder-Enhanced Transport in Photonic Lattices. , 2011, , .		0
39	Double-humped states in the nonlinear Schrödinger equation with a random potential. <i>Physical Review E</i> , 2010, 81, 017201.	2.1	20
40	A numerical and symbolical approximation of the nonlinear Anderson model. <i>New Journal of Physics</i> , 2010, 12, 063035.	2.9	21
41	Spreading for the generalized nonlinear Schrödinger equation with disorder. <i>Physical Review E</i> , 2009, 80, 037201.	2.1	51
42	Perturbation theory for the nonlinear Schrödinger equation with a random potential. <i>Nonlinearity</i> , 2009, 22, 2861-2887.	1.4	32
43	Breakdown of Anderson Localization Due to Dynamic Disorder. , 2009, , .		0
44	On the Problem of Dynamical Localization in the Nonlinear Schrödinger Equation with a Random Potential. <i>Journal of Statistical Physics</i> , 2008, 131, 843-865.	1.2	26
45	Structural phase transitions in low-dimensional ion crystals. <i>Physical Review B</i> , 2008, 77, .	3.2	130
46	Localisation of light in disordered lattices. <i>Electronics Letters</i> , 2008, 44, 165.	1.0	6
47	Ramsey interferometry with a spin embedded in a Coulomb chain. <i>Physical Review A</i> , 2008, 78, .	2.5	26
48	Asymptotic localization of stationary states in the nonlinear Schrödinger equation. <i>Physical Review E</i> , 2008, 78, 066605.	2.1	15
49	Nonlinearity and localization in disordered lattices. , 2007, , .		0
50	Fractional $\hat{a}_n$ Scaling for Quantum Kicked Rotors without Cantori. <i>Physical Review Letters</i> , 2007, 99, 234101.	7.8	10
51	Effects of atomic interactions on quantum accelerator modes. <i>Physical Review A</i> , 2007, 76, .	2.5	17
52	Localization length of stationary states in the nonlinear Schrödinger equation. <i>Physical Review E</i> , 2007, 76, 056607.	2.1	19
53	Localization of Light in Disordered Lattices. <i>Optics and Photonics News</i> , 2007, 18, 35.	0.5	5
54	Regimes of stability of accelerator modes. <i>Physica D: Nonlinear Phenomena</i> , 2007, 226, 1-10.	2.8	6

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55	A universal scaling theory for complexity of analog computation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 371, 271-274.	2.1	0
56	Transport and Anderson localization in disordered two-dimensional photonic lattices. Nature, 2007, 446, 52-55.	27.8	1,304
57	One-dimensional Coulomb crystals at low temperatures. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, S221-S230.	1.5	5
58	Arnol'd tongues and quantum accelerator modes. Nonlinearity, 2006, 19, 1141-1164.	1.4	14
59	Quantum Accelerator Modes from the Farey Tree. Physical Review Letters, 2006, 96, 164101.	7.8	32
60	Decay of quantum accelerator modes. Physical Review A, 2006, 73, .	2.5	37
61	Scaling and universality of the complexity of analog computation. Chaos, 2006, 16, 023108.	2.5	1
62	Theory of $2\hat{\Gamma}$ -kicked quantum rotors. Physical Review E, 2006, 73, 066202.	2.1	17
63	Transport and anderson localization in 2-dimensional photonic lattices. , 2006, , .		1
64	Changes in the slope of the first major deflection of the ECG complex during acute coronary occlusion. Computers in Biology and Medicine, 2005, 35, 299-309.	7.0	9
65	Time-independent approximations for periodically driven systems with friction. Physical Review E, 2005, 71, 036210.	2.1	10
66	Novel Quantum Chaotic Dynamics in Cold Atoms. Physica Scripta, 2004, 69, C25-C31.	2.5	9
67	Classical Scaling Theory of Quantum Resonances. Physical Review Letters, 2004, 92, 084102.	7.8	58
68	Eigenmodes and Thermodynamics of a Coulomb Chain in a Harmonic Potential. Physical Review Letters, 2004, 93, 170602.	7.8	54
69	Decoherence as a probe of coherent quantum dynamics. Physical Review E, 2004, 69, 027201.	2.1	30
70	Dynamics of an ion chain in a harmonic potential. Physical Review E, 2004, 70, 066141.	2.1	46
71	Non-invasive computerised detection of acute coronary occlusion. Medical and Biological Engineering and Computing, 2004, 42, 294-302.	2.8	3
72	Random matrix theory for the analysis of the performance of an analog computer: a scaling theory. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 323, 204-209.	2.1	8

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73	A Theory for Quantum Accelerator Modes in Atom Optics. Journal of Statistical Physics, 2003, 110, 911-943.	1.2	64
74	Time Independent Description of Rapidly Oscillating Potentials. Physical Review Letters, 2003, 91, 110404.	7.8	75
75	Effective Hamiltonians for periodically driven systems. Physical Review A, 2003, 68, .	2.5	192
76	Probabilistic analysis of a differential equation for linear programming. Journal of Complexity, 2003, 19, 474-510.	1.3	11
77	Exercise stress testing, myocardial perfusion imaging and stress echocardiography for detecting restenosis after successful percutaneous transluminal coronary angioplasty: a review of performance. Journal of Internal Medicine, 2003, 253, 253-262.	6.0	43
78	Trapping of particles by lasers: the quantum Kapitza pendulum. Journal of Physics A, 2003, 36, L409-L415.	1.6	38
79	Quantum resonances and decoherence for $\hat{A}$ -kicked atoms. Nonlinearity, 2003, 16, 1381-1420.	1.4	107
80	Point perturbations of circle billiards. Journal of Physics A, 2003, 36, L529-L536.	1.6	9
81	Stable Quantum Resonances in Atom Optics. Physical Review Letters, 2002, 89, 084101.	7.8	86
82	Quantum localization for a kicked rotor with accelerator mode islands. Physical Review E, 2002, 65, 036215.	2.1	48
83	Localized perturbations of integrable quantum billiards. Physical Review E, 2002, 65, 067204.	2.1	3
84	Spectral statistics of rectangular billiards with localized perturbations. Nonlinearity, 2002, 15, 1541-1594.	1.4	21
85	Evaluation of the phase-plane ECG as a technique for detecting acute coronary occlusion. International Journal of Cardiology, 2002, 84, 161-170.	1.7	16
86	A Theory of Complexity for Continuous Time Systems. Journal of Complexity, 2002, 18, 51-86.	1.3	33
87	Spectral Statistics of the Rectangular Billiard with a Flux Line. Foundations of Physics, 2001, 31, 115-146.	1.3	6
88	Localization of eigenstates in a modified Tomonaga-Luttinger model. Physical Review B, 2001, 63, .	3.2	2
89	<title>Computational complexity for continuous-time dynamics</title> . , 2000, , .		0
90	The quantum-classical crossover in the adiabatic response of chaotic systems. Journal of Physics A, 2000, 33, 1957-1974.	1.6	4

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91	Metal-insulator transitions in the cyclotron resonance of periodic semiconductor nanostructures due to avoided band crossings. <i>Physical Review B</i> , 2000, 62, 15348-15351.	3.2	4
92	The correlation dimension of rat hearts in an experimentally controlled environment. <i>Chaos</i> , 2000, 10, 257-267.	2.5	4
93	Relaxation to the invariant density for the kicked rotor. <i>Physical Review E</i> , 2000, 62, 4769-4783.	2.1	27
94	Correlations in the Adiabatic Response of Chaotic Systems. <i>Physical Review Letters</i> , 2000, 84, 1886-1889.	7.8	10
95	Relaxation and Diffusion for the Kicked Rotor. <i>Physical Review Letters</i> , 2000, 84, 2837-2840.	7.8	34
96	Semiclassical cross section correlations. <i>Physical Review E</i> , 2000, 62, 7867-7871.	2.1	7
97	Experimental observation of localization in the spatial frequency domain of a kicked optical system. <i>Physical Review E</i> , 2000, 61, R4694-R4697.	2.1	16
98	Optical kicked system exhibiting localization in the spatial frequency domain. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2000, 17, 1579.	2.1	11
99	The accuracy of semiclassical quantization for an integrable system - the hyperspherical billiard. <i>Journal of Physics A</i> , 1999, 32, 7093-7107.	1.6	3
100	Computational Complexity for Continuous Time Dynamics. <i>Physical Review Letters</i> , 1999, 83, 1463-1466.	7.8	27
101	Localization in frequency for periodically kicked light propagation in a dispersive single-mode fiber. <i>Optics Letters</i> , 1999, 24, 1463.	3.3	20
102	Wave Functions, Wigner Functions and Green Functions of Chaotic Systems. <i>NATO ASI Series Series B: Physics</i> , 1999, , 193-225.	0.2	1
103	Analog computation with dynamical systems. <i>Physica D: Nonlinear Phenomena</i> , 1998, 120, 214-235.	2.8	56
104	The diagonal approximation for non-time-reversal-symmetric systems. <i>Journal of Physics A</i> , 1998, 31, L313-L319.	1.6	4
105	Spectral statistics of chaotic and disordered systems. <i>Lecture Notes in Physics</i> , 1997, , 122-153.	0.7	0
106	Semiclassical Analysis of Energy Level Correlations for a Disordered Mesoscopic System. <i>Physical Review Letters</i> , 1996, 76, 726-729.	7.8	13
107	Excitation of Small Quantum Systems by High-Frequency Fields. <i>Physical Review Letters</i> , 1996, 77, 3763-3766.	7.8	15
108	High-frequency excitation of quantum systems with adiabatic nonlinearity. <i>Journal of Physics A</i> , 1996, 29, 7199-7227.	1.6	4

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109	Periodic orbits analysis of the form factor: from ballistic to diffusive systems. Journal of Physics A, 1996, 29, 2013-2038.	1.6	10
110	Fredholm method for scars. Journal of Physics A, 1996, 29, 919-937.	1.6	36
111	Approach to ergodicity in quantum wave functions. Physical Review E, 1995, 52, 5893-5903.	2.1	93
112	Semiclassical dynamics of a bound system in a high-frequency field. Journal of Physics A, 1995, 28, 5973-6011.	1.6	10
113	Semiclassical criterion for scars in wave functions of chaotic systems. Physical Review Letters, 1994, 73, 806-809.	7.8	85
114	Quantum eigenfunctions in terms of periodic orbits of chaotic systems. Journal of Physics A, 1993, 26, 2113-2137.	1.6	56
115	Weak localization in a chaotic periodically driven anharmonic oscillator. Physical Review E, 1993, 47, 1646-1649.	2.1	14
116	Pseudo-randomness and localization. Nonlinearity, 1992, 5, 211-235.	1.4	31
117	Localized electrons on a lattice with incommensurate magnetic flux. Physical Review B, 1992, 46, 12154-12164.	3.2	5
118	Experimental realizations of quantum chaos in dielectric waveguides. Physical Review A, 1992, 45, 6773-6802.	2.5	8
119	Quasienergy spectroscopy in mesoscopic systems. Physical Review B, 1992, 46, 14675-14685.	3.2	16
120	Semiclassical matrix elements from periodic orbits. Physical Review A, 1992, 45, 3531-3539.	2.5	71
121	Scaling of the information length in 1D tight-binding models. Journal of Physics Condensed Matter, 1992, 4, 149-156.	1.8	33
122	Quantal Suppression of Chaos and its Realizations. , 1992, , 61-71.		0
123	Manifestation of Localization in Noise-Induced Ionization and Dissociation. Europhysics Letters, 1991, 16, 643-648.	2.0	17
124	Zener tunneling in systems without level crossing. Physical Review A, 1990, 42, 5181-5192.	2.5	22
125	Quantum dissipation for the kicked particle. Physical Review A, 1989, 39, 6478-6490.	2.5	21
126	Charging corrections to the Josephson Hamiltonian. Physical Review B, 1989, 40, 2158-2162.	3.2	10



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127	Scaling theory for the localization length of the kicked rotor. <i>Physical Review A</i> , 1989, 39, 1628-1633.	2.5	53
128	Experimental realizations of kicked quantum chaotic systems. <i>Physical Review Letters</i> , 1989, 63, 704-707.	7.8	37
129	Quantal suppression of chaos; is it universal?. <i>Physica Scripta</i> , 1989, 40, 416-422.	2.5	8
130	Comment on "Quantum Suppression of Irregularity in the Spectral Properties of the Kicked Rotator". <i>Physical Review Letters</i> , 1988, 61, 377-377.	7.8	13
131	Anderson localization for a two-dimensional rotor. <i>Physical Review Letters</i> , 1988, 60, 867-870.	7.8	50
132	Localization by pseudorandom potentials in one dimension. <i>Physical Review Letters</i> , 1988, 60, 1334-1337.	7.8	111
133	Perturbative calculation of the diffusion coefficient for a multidimensional kicked rotor. <i>Physical Review A</i> , 1988, 37, 2144-2150.	2.5	5
134	CLASSICAL DIFFUSION AND QUANTAL LOCALIZATION OF A KICKED PARTICLE IN A WELL. <i>International Journal of Modern Physics B</i> , 1988, 02, 103-120.	2.0	20
135	Temporal crossover from classical to quantal behavior near dynamical critical points. <i>Physical Review A</i> , 1987, 36, 289-305.	2.5	57
136	Statistics of quasienergies in chaotic and random systems. <i>Physica D: Nonlinear Phenomena</i> , 1987, 25, 181-195.	2.8	25
137	Phase diagram of externally modulated Rayleigh-BÃ©nard system near the codimension-two point. <i>Physical Review A</i> , 1986, 34, 4171-4180.	2.5	4
138	Excitation of molecular rotation by periodic microwave pulses. A testing ground for Anderson localization. <i>Journal of Chemical Physics</i> , 1986, 84, 2604-2614.	3.0	102
139	Diffusion in the standard map. <i>Physica D: Nonlinear Phenomena</i> , 1985, 17, 63-74.	2.8	31
140	The instability of long-period commensurate phases in the presence of quenched impurities. <i>Journal of Physics C: Solid State Physics</i> , 1985, 18, 3911-3918.	1.5	13
141	Can long-period phases remain stable in the presence of quenched impurities?. <i>Journal of Physics C: Solid State Physics</i> , 1985, 18, 857-867.	1.5	14
142	Chaotic behavior in externally modulated hydrodynamic systems. <i>Physical Review A</i> , 1985, 32, 702-705.	2.5	21
143	Statistics of quasi-energy separations in chaotic systems. <i>Physical Review B</i> , 1985, 31, 6852-6855.	3.2	58
144	Quantum Chaos and Anderson Localization. <i>NATO ASI Series Series B: Physics</i> , 1985, , 205-216.	0.2	5

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145	Solvable model of quantum motion in an incommensurate potential. <i>Physical Review B</i> , 1984, 29, 6500-6512.	3.2	58
146	Finite-Planck's-Constant Scaling at Stochastic Transitions of Dynamical Systems. <i>Physical Review Letters</i> , 1984, 53, 1212-1215.	7.8	42
147	Long-Range Resonance in Anderson Insulators: Finite-Frequency Conductivity of Random and Incommensurate Systems. <i>Physical Review Letters</i> , 1984, 53, 1582-1585.	7.8	13
148	Nonlinear extensions of squareâ€ gradient theory for fluid pair correlations. <i>Journal of Chemical Physics</i> , 1984, 80, 3392-3398.	3.0	3
149	Localization in ad-dimensional incommensurate structure. <i>Physical Review B</i> , 1984, 29, 4272-4276.	3.2	35
150	Quantum dynamics of a nonintegrable system. <i>Physical Review A</i> , 1984, 29, 1639-1647.	2.5	437
151	Criticality in the Yvonâ€Bornâ€Green and similar integral equations. <i>Journal of Chemical Physics</i> , 1983, 78, 4227-4244.	3.0	22
152	Wave functions at a mobility edge: An example of a singular continuous spectrum. <i>Physical Review B</i> , 1983, 28, 7370-7372.	3.2	25
153	Intermittent Chaos in Josephson Junctions. <i>Physical Review Letters</i> , 1982, 49, 1599-1602.	7.8	96
154	Spherical model for superfluidity in a restricted geometry. <i>Physical Review B</i> , 1982, 26, 1258-1279.	3.2	12
155	Localization in an Incommensurate Potential: An Exactly Solvable Model. <i>Physical Review Letters</i> , 1982, 49, 833-836.	7.8	248
156	Chaos, Quantum Recurrences, and Anderson Localization. <i>Physical Review Letters</i> , 1982, 49, 509-512.	7.8	877
157	Fourier space analysis of the Yvon-Born-Green equation in the critical region. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1981, 109, 382-402.	2.6	8
158	Critical point scaling in the Percus-Yevick equation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1981, 108, 1-13.	2.6	54
159	Critical Scattering and Integral Equations for Fluids. <i>Physical Review Letters</i> , 1981, 47, 421-423.	7.8	41
160	Critical Point Correlations of the Yvon-Born-Green Equation. <i>Physical Review Letters</i> , 1981, 46, 795-798.	7.8	41
161	Critical Point Correlations of the Yvon-Born-Green Equation. <i>Physical Review Letters</i> , 1981, 46, 1350-1350.	7.8	1
162	Real space renormalization group study of the random bond Ising model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1980, 104, 115-125.	2.6	11

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163	Percolation description of granular superconductors. Physical Review B, 1980, 21, 5041-5047.	3.2	157
164	Phase diagrams and multicritical points in randomly mixed magnets. III. Competing spin-glass and magnetic ordering. Physical Review B, 1980, 21, 280-295.	3.2	55
165	Random field effects in disordered metamagnets. Journal of Magnetism and Magnetic Materials, 1980, 15-18, 239-240.	2.3	5
166	Critical and multicritical properties of random antiferromagnets. Journal of Magnetism and Magnetic Materials, 1980, 15-18, 396-398.	2.3	21
167	Phase diagrams and multicritical points in randomly mixed magnets. II. Ferromagnet-antiferromagnet alloys.. Physical Review B, 1979, 19, 3776-3787.	3.2	58
168	Random field effects in disordered anisotropic antiferromagnets. Journal of Physics C: Solid State Physics, 1979, 12, L729-L733.	1.5	558
169	Phase diagrams and multicritical points in randomly mixed magnets. I. Mixed anisotropies. Physical Review B, 1978, 18, 3507-3520.	3.2	121
170	Ghost cuts of the nucleon propagator. Physical Review D, 1976, 13, 1769-1777.	4.7	1
171	Decoupled Tetracritical Points in Quenched Random Alloys with Competing Anisotropies. Physical Review Letters, 1976, 37, 1587-1590.	7.8	117
172	Dressing the nucleon propagator. Physical Review D, 1976, 14, 2162-2181.	4.7	0