Lazar Friedland

List of Publications by Year in descending order

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Version: 2024-02-01

78 papers	1,578 citations	257450 24 h-index	315739 38 g-index
78 all docs	78 docs citations	78 times ranked	586 citing authors

#	Article	IF	Citations
1	Autoresonant excitation of space-time quasicrystals in plasma. Physical Review Research, 2022, 4, .	3.6	3
2	Transient precessing domain structures in finite-size nanomagnets and inversion of magnetization. Physical Review B, 2021, 104, .	3.2	0
3	Standing autoresonant plasma waves. Journal of Plasma Physics, 2020, 86, .	2.1	4
4	Quantum versus classical chirps in a Rydberg atom. Physical Review A, 2020, 102, .	2.5	2
5	Creating and Controlling Plasma-Based Optical Elements. , 2020, , .		0
6	Quantum versus classical effects in the chirped-drive discrete nonlinear SchrÃ¶dinger equation. Physical Review A, 2019, 100, .	2.5	3
7	Narrow autoresonant magnetization structures in finite-length ferromagnetic nanoparticles. Physical Review E, 2019, 100, 032208.	2.1	3
8	Excitation and control of large-amplitude standing magnetization waves. Physical Review B, 2019, 99, .	3.2	3
9	Excitation and control of large amplitude standing ion acoustic waves. Physics of Plasmas, 2019, 26, .	1.9	14
10	Autoresonant excitation of Bose-Einstein condensates. Physical Review E, 2018, 97, 032210.	2.1	12
11	Chirped-frequency excitation of gravitationally bound ultracold neutrons. Physical Review D, 2017, 95, .	4.7	12
12	Spin-torque switching and control using chirped AC currents. Journal Physics D: Applied Physics, 2017, 50, 415002.	2.8	3
13	Quantum versus classical dynamics in the optical centrifuge. Physical Review A, 2017, 96, .	2.5	12
14	Extreme driven ion acoustic waves. Physics of Plasmas, 2017, 24, .	1.9	11
15	Chirped resonance dynamics in phase space. Journal of Plasma Physics, 2016, 82, .	2.1	5
16	AUTORESONANCE. Advanced Textbooks in Physics, 2016, , 255-274.	0.1	0
17	Capture into resonance and phase-space dynamics in an optical centrifuge. Physical Review A, 2016, 93, .	2.5	14
18	Parametric autoresonant excitation of the nonlinear SchrÃ¶dinger equation. Physical Review E, 2016, 94, 042216.	2.1	4

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19	Anomalous autoresonance threshold for chirped-driven Kortewegâ€“de-Vries waves. Physical Review E, 2015, 92, 042924.	2.1	3
20	Autoresonant excitation of dark solitons. Physical Review E, 2015, 91, 012913.	2.1	9
21	Autoresonant switching of the magnetization in single-domain nanoparticles: Two-level theory. Physical Review B, 2015, 91, .	3.2	18
22	Quantum Phenomena in a Chirped Parametric Anharmonic Oscillator. Physical Review Letters, 2014, 113, 040403.	7.8	11
23	First-harmonic approximation in nonlinear chirped-driven oscillators. Physical Review E, 2014, 89, 012902.	2.1	1
24	Excitation and control of chirped nonlinear ion-acoustic waves. Physical Review E, 2014, 89, 053103.	2.1	5
25	Parametric amplification in Josephson junction embedded transmission lines. Physical Review B, 2013, 87, .	3.2	75
26	Two-photon ladder climbing and transition to autoresonance in a chirped oscillator. Physical Review A, 2013, 87, .	2.5	8
27	Experimental and computational study of the injection of antiprotons into a positron plasma for antihydrogen production. Physics of Plasmas, 2013, 20, .	1.9	19
28	Nonlocal, kinetic stimulated Raman scattering in nonuniform plasmas: Averaged variational approach. Physics of Plasmas, 2012, 19, .	1.9	8
29	Quantum and Classical Chirps in an Anharmonic Oscillator. Physical Review Letters, 2012, 108, 037701.	7.8	30
30	Quantum fluctuations in the chirped pendulum. Nature Physics, 2011, 7, 105-108.	16.7	39
31	Autoresonance of coupled nonlinear waves. , 2011, , .		0
32	Quantum versus classical phase-locking transition in a frequency-chirped nonlinear oscillator. Physical Review A, 2011, 84, .	2.5	22
33	Autoresonant Dynamics of Optical Guided Waves. Physical Review Letters, 2009, 103, 123901.	7.8	29
34	Autoresonant excitation of multiphase waves in the sine-Gordon model. Physica D: Nonlinear Phenomena, 2009, 238, 1561-1568.	2.8	10
35	Autoresonance in nonlinear systems. Scholarpedia Journal, 2009, 4, 5473.	0.3	38
36	Driven chirped vorticity holes. Physics of Fluids, 2008, 20, 086602.	4.0	3

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37	Spatially autoresonant stimulated Raman scattering in nonuniform plasmas. Physics of Plasmas, 2008, 15, .	1.9	22
38	Phase-Locking Transition in a Chirped Superconducting Josephson Resonator. Physical Review Letters, 2008, 101, 117005.	7.8	42
39	A water bag model of driven phase space holes in non-neutral plasmas. Physics of Plasmas, 2008, 15, 082110.	1.9	5
40	Multiresonant control of two-dimensional dynamical systems. Physical Review E, 2007, 76, 016211.	2.1	8
41	Removal of resonances by rotation in linearly degenerate two-dimensional oscillator systems. Journal of Mathematical Physics, 2007, 48, 042701.	1.1	3
42	Molecular vibrational ladder climbing using a sub-nanosecond chirped laser pulse. Europhysics Letters, 2006, 74, 43-48.	2.0	17
43	Emergence and control of breather and plasma oscillations by synchronizing perturbations. Physical Review E, 2006, 73, 066612.	2.1	11
44	Autoresonant Phase-Space Holes in Plasmas. Physical Review Letters, 2006, 96, 225001.	7.8	33
45	Autoresonant beat-wave generation. Physics of Plasmas, 2006, 13, 123103.	1.9	8
46	Excitation of multiphase waves of the nonlinear SchrÃ¶dinger equation by capture into resonances. Physical Review E, 2005, 71, 036206.	2.1	46
47	Numerical studies of driven, chirped Bernstein, Greene, and Kruskal modes. Physics of Plasmas, 2005, 12, 062112.	1.9	13
48	From quantum ladder climbing to classical autoresonance. Physical Review A, 2004, 69, .	2.5	45
49	Driven phase space holes and synchronized Bernstein, Greene, and Kruskal modes. Physics of Plasmas, 2004, 11, 4305-4317.	1.9	19
50	Multiphase control of a nonlinear lattice. Physical Review E, 2003, 68, 066214.	2.1	9
51	Emergence and Control of Multiphase Nonlinear Waves by Synchronization. Physical Review Letters, 2003, 90, 074101.	7.8	25
52	Spatial control of a classical electron state in a Rydberg atom by adiabatic synchronization. Physical Review E, 2002, 65, 046230.	2.1	18
53	Autoresonant (nonstationary) excitation of pendulums, Plutinos, plasmas, and other nonlinear oscillators. American Journal of Physics, 2001, 69, 1096-1102.	0.7	169
54	Migration Timescale Thresholds for Resonant Capture in the Plutino Problem. Astrophysical Journal, 2001, 547, L75-L79.	4.5	52

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55	The effect of damping on autoresonant (nonstationary) excitation. Physics of Plasmas, 2001, 8, 423-427.	1.9	27
56	Resonant Formation and Control of 2D Symmetric Vortex Waves. Physical Review Letters, 2000, 85, 2941-2944.	7.8	24
57	Second harmonic autoresonant control of thel=1diocotron mode in pure-electron plasmas. Physical Review E, 2000, 62, 4131-4136.	2.1	27
58	Autoresonant (nonstationary) excitation of a collective nonlinear mode. Physics of Plasmas, 1999, 6, 4497-4503.	1.9	47
59	Control of Kirchhoff vortices by a resonant strain. Physical Review E, 1999, 59, 4106-4111.	2.1	40
60	Autoresonant (Nonstationary) Excitation of the Diocotron Mode in Non-neutral Plasmas. Physical Review Letters, 1999, 82, 4444-4447.	7.8	94
61	Autoresonant solutions of the nonlinear SchrÃ¶dinger equation. Physical Review E, 1998, 58, 3865-3875.	2.1	26
62	Excitation of Solitons by Adiabatic Multiresonant Forcing. Physical Review Letters, 1998, 81, 4357-4360.	7.8	55
63	Resonant excitation and control of high order dispersive nonlinear waves. Physics of Plasmas, 1998, 5, 645-658.	1.9	21
64	Autoresonant wave interactions in nonuniform plasmas. AIP Conference Proceedings, 1995, , .	0.4	0
65	Multidimensional autoresonant mode conversion. Physics of Plasmas, 1995, 2, 1393-1397.	1.9	9
66	Hermitian description of interacting inhomogeneous electron beams. Physics of Fluids B, 1992, 4, 1457-1464.	1.7	2
67	A class of conservative tunneling problems. Physics of Fluids B, 1992, 4, 24-34.	1.7	3
68	Spatial autoresonance: Enhancement of mode conversion due to nonlinear phase locking. Physics of Fluids B, 1992, 4, 3199-3209.	1.7	30
69	Autoresonance microwave accelerator. Journal of Applied Physics, 1991, 70, 1101-1106.	2.5	26
70	Electron beam transport in gasâ€loaded freeâ€electron lasers. Physics of Fluids B, 1990, 2, 3114-3119.	1.7	1
71	Threeâ€dimensional transmission of the fast wave in ion cyclotron resonance plasma heating. Physics of Fluids B, 1990, 2, 1204-1209.	1.7	1
72	Strong autoresonance excitation of Rydberg atoms: The Rydberg accelerator. Physical Review A, 1990, 41, 5233-5236.	2.5	111

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73	Theory of electron multiplication in gases in strong weakly nonuniform electric fields. Journal of Applied Physics, 1984, 56, 742-745.	2.5	0
74	Theory of a nonwiggler collective free electron laser in uniform magnetic field. IEEE Journal of Quantum Electronics, 1983, 19, 327-333.	1.9	40
75	Multiphoton transitions in free electron lasers. , 1983, , .		0
76	Simplified small signal gain calculations in free electron lasers. , 1983, , .		0
77	Amplification of frequency upshifted radiation by cold relativistic guided electron beams. Journal of Applied Physics, 1982, 53, 4011-4015.	2.5	15
78	From the pendulum to rydberg accelerator and planetary dynamics: autoresonant formation and control of nonlinear states. , 0, , .		1