

Nykolay Makarov

List of Publications by Year in descending order

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88
papers

1,015
citations

567281

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477307

29
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88
all docs

88
docs citations

88
times ranked

506
citing authors

#	ARTICLE	IF	CITATIONS
1	Anomalous localization in low-dimensional systems with correlated disorder. Physics Reports, 2012, 512, 125-254.	25.6	210
2	Effect of microstructure on the magnetic-field dependence of the local critical current density in YBa ₂ Cu ₃ O _{7-δ} superconductors. Physical Review B, 1992, 46, 10986-10996.	3.2	45
3	Localization in Correlated Bilayer Structures: From Photonic Crystals to Metamaterials and Semiconductor Superlattices. Physical Review Letters, 2009, 102, 203901.	7.8	45
4	Anomalous transport in low-dimensional systems with correlated disorder. Journal of Physics A, 2005, 38, 10613-10637.	1.6	41
5	Collapse of superconducting current in high-T _c ceramics in alternating magnetic field. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 148, 213-216.	2.1	38
6	One dimensional Kronig-Penney model with positional disorder: Theory versus experiment. Physical Review B, 2009, 80, .	3.2	38
7	Classical and quantum size effects in electron conductivity of films with rough boundaries. Physical Review B, 1995, 52, 6087-6101.	3.2	35
8	Onset of delocalization in quasi-one-dimensional waveguides with correlated surface disorder. Physical Review B, 2003, 67, .	3.2	27
9	Nonlocal effects in the electrodynamics of metallic slabs. JETP Letters, 2010, 90, 623-627.	1.4	27
10	Microwave realization of quasi-one-dimensional systems with correlated disorder. Physical Review B, 2011, 83, .	3.2	27
11	Electron localization in narrow surface-corrugated conducting channels: Manifestation of competing scattering mechanisms. Physical Review B, 2001, 64, .	3.2	26
12	Selective transparency of single-mode waveguides with surface scattering. Optics Letters, 2001, 26, 1604.	3.3	24
13	Conductance of a single-mode electron waveguide with statistically identical rough boundaries. Journal of Physics Condensed Matter, 1998, 10, 1523-1537.	1.8	23
14	Generation of correlated binary sequences from white noise. Physical Review E, 2007, 76, 027701.	2.1	21
15	Strong one-dimensional localization in systems with statistically rough boundaries. Physical Review B, 1990, 41, 8033-8036.	3.2	18
16	Manifestation of the roughness-square-gradient scattering in surface-corrugated waveguides. Physical Review B, 2006, 73, .	3.2	16
17	Selective transport and mobility edges in quasi-one-dimensional systems with a stratified correlated disorder. Applied Physics Letters, 2004, 84, 5150-5152.	3.3	15
18	Gradient and amplitude scattering in surface-corrugated waveguides. Physical Review B, 2005, 72, .	3.2	15

#	ARTICLE	IF	CITATIONS
19	The Signum function method for the generation of correlated dichotomic chains. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 175101.	2.1	14
20	Anderson localization in bi-layer array with compositional disorder: Conventional photonic crystals versus metamaterials. Physica B: Condensed Matter, 2010, 405, 3022-3025.	2.7	14
21	Radio-frequency surface impedance of HTSC-ceramics and definition of critical current density. Solid State Communications, 1990, 76, 141-144.	1.9	13
22	Non-conventional Anderson localization in bilayered structures. Europhysics Letters, 2012, 98, 27003.	2.0	13
23	Surface scattering and band gaps in rough waveguides and nanowires. Physical Review B, 2012, 86, .	3.2	13
24	Nonlocal effect on optic spectrum of a periodic dielectric-metal stack. Optics Express, 2014, 22, 7581.	3.4	13
25	Non-linear interaction of a transport current with an electromagnetic wave in high-Tc ceramics. Physica C: Superconductivity and Its Applications, 1992, 197, 161-166.	1.2	12
26	Excitation of terahertz modes localized on a layered superconductor: Anomalous dispersion and resonant transmission. Physical Review B, 2018, 97, .	3.2	12
27	Square-gradient mechanism of surface scattering in quasi-one-dimensional rough waveguides. Physical Review B, 2007, 75, .	3.2	11
28	Enhanced transmission of terahertz radiation through a periodically modulated slab of layered superconductor. New Journal of Physics, 2013, 15, 023040.	2.9	11
29	Landau damping of electromagnetic transport via dielectric-metal superlattices. Optics Letters, 2015, 40, 3588.	3.3	11
30	Rough surface scattering in many-mode conducting channels: gradient versus amplitude scattering. Physica Status Solidi (B): Basic Research, 2005, 242, 1224-1228.	1.5	10
31	HTSC ceramics response to electromagnetic signal of finite amplitude. Solid State Communications, 1990, 73, 691-693.	1.9	9
32	Transmission of terahertz waves through layered superconductors controlled by a dc magnetic field. Physical Review B, 2016, 94, .	3.2	9
33	Microscopic theory of conduction electron scattering from a random metal surface with mildly sloping asperities. Journal of Physics Condensed Matter, 1991, 3, 4621-4632.	1.8	8
34	Anderson localization in metamaterials with compositional disorder. Low Temperature Physics, 2011, 37, 957-963.	0.6	8
35	THz photonic bands of periodic stacks composed of resonant dielectric and nonlocal metal. Optical Materials Express, 2015, 5, 361.	3.0	8
36	Ballistic, diffusive, and localized transport in surface-disordered systems: Two-mode waveguide. Physical Review E, 2011, 83, 051124.	2.1	7

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37	Features of the electromagnetic absorption in high-temperature textured samples. Journal of Applied Physics, 1994, 75, 7414-7417.	2.5	6
38	Jumps of the electric field on the surface of a hard superconductor. Solid State Communications, 1995, 93, 697-700.	1.9	6
39	Size effect in hard superconductors at unilateral excitation. Applied Physics Letters, 1995, 67, 419-421.	3.3	6
40	Controlled transparency of many-mode waveguides with rough surface. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 3037-3041.	0.8	6
41	Resonant enhancement of Anderson localization: Analytical approach. Physical Review E, 2013, 88, 052108.	2.1	6
42	Resonant transparency of a layered superconductor: Hyperbolic material in the terahertz range tuned by dc magnetic field. Physical Review B, 2021, 103, .	3.2	6
43	Frequency limitations for the applicability of the critical state model. Applied Superconductivity, 1994, 2, 685-687.	0.5	5
44	Memory function versus binary correlator in additive Markov chains. Physica A: Statistical Mechanics and Its Applications, 2006, 372, 279-297.	2.6	5
45	Reflection resonances in surface-disordered waveguides: strong higher-order effects of the disorder. New Journal of Physics, 2014, 16, 053026.	2.9	5
46	Iterative method for generating correlated binary sequences. Physical Review E, 2014, 90, 053305.	2.1	5
47	Hysteresis interaction of radio waves in metals. Journal of Physics Condensed Matter, 1993, 5, 8741-8748.	1.8	4
48	Interaction of electromagnetic waves in hard superconductors. Physica C: Superconductivity and Its Applications, 1995, 251, 50-60.	1.2	4
49	Sign-alternating current structure and oscillations in I-V characteristics of a metal plate. Journal of Physics Condensed Matter, 1995, 7, 625-637.	1.8	4
50	Non-conventional Anderson localization in a matched quarter stack with metamaterials. New Journal of Physics, 2013, 15, 055014.	2.9	4
51	Quantum resonances of Landau damping in the electromagnetic response of metallic nanoslabs. Optics Letters, 2018, 43, 2410.	3.3	4
52	Nonlinear skin effect and electromagnetic sound generation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1988, 130, 390-394.	2.1	3
53	Hysteresis and jumps for the amplitude of electromagnetically excited sound in metals placed in a magnetic field. Physics Letters, Section A: General, Atomic and Solid State Physics, 1988, 133, 536-542.	2.1	3
54	Non-linear conductivity and magnetoplasma waves in compensated metals and semi-metals. Journal of Physics Condensed Matter, 1998, 10, 1033-1052.	1.8	3

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55	Temperature dependence of the photoluminescence polarization of ordered III-V semiconductor alloys. <i>Journal of Applied Physics</i> , 2016, 119, 115702.	2.5	3
56	$\mathcal{P}\mathcal{T}$ -symmetric transport in non- $\mathcal{P}\mathcal{T}$ -symmetric bi-layer optical arrays. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 09LT01.	2.2	3
57	Left-to-right and right-to-left switching of a unidirectional reflection. <i>Physical Review A</i> , 2017, 96, .	2.5	3
58	Electrodynamics of superlattices with ultra-thin metal layers: quantum Landau damping and band gaps with nonzero density of states. <i>Optical Materials Express</i> , 2019, 9, 673.	3.0	3
59	On the theory of surface impedance of metals placed in a magnetic field. <i>Solid State Communications</i> , 1981, 39, 815-820.	1.9	2
60	Current states in a metal plate. <i>Journal of Physics Condensed Matter</i> , 1993, 5, 7469-7480.	1.8	2
61	Shock magnetoplasma waves in metals. <i>Journal of Physics Condensed Matter</i> , 1995, 7, 7549-7559.	1.8	2
62	Effect of the substrate on the ac response of superconductors with strong pinning to an incident plane wave. <i>Journal of Applied Physics</i> , 1996, 80, 6370-6377.	2.5	2
63	Spectral theory of a surface-corrugated electron waveguide: The exact scattering-operator approach. <i>Physical Review B</i> , 1999, 60, 258-269.	3.2	2
64	Scattering by one-dimensional smooth potentials: between WKB and Born approximation. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 27, 262-269.	2.7	2
65	Strong nonlinear effects in conductivity of thin metallic samples (Review Article). <i>Low Temperature Physics</i> , 2011, 37, 895-902.	0.6	2
66	Discrimination between two mechanisms of surface scattering in a single-mode waveguide. <i>Physical Review E</i> , 2011, 84, 051131.	2.1	2
67	Correlated disorder: a novel approach to filter design. <i>Journal of Optics (United Kingdom)</i> , 2015, 17, 055001.	2.2	2
68	1D Anderson model revisited: Band center anomaly for correlated disorder. <i>Low Temperature Physics</i> , 2017, 43, 284-289.	0.6	2
69	Resonant absorption of terahertz waves in layered superconductors: Wood's anomalies and anomalous dispersion. <i>Physical Review B</i> , 2020, 101, .	3.2	2
70	Surface sound waves theory in metals in a weak magnetic field. <i>Solid State Communications</i> , 1970, 8, 581-585.	1.9	1
71	Nonperturbative results for the spectrum of surface-disordered waveguides. <i>Optics Letters</i> , 1998, 23, 1727.	3.3	1
72	Multi-fractal properties of the nonlinear electromagnetic response of irreversible type-II superconductors. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2000, 266, 409-413.	2.1	1

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73	Surface scattering frequency and optical absorptivity of exciton in quasi-two-dimensional quantum wells. Solid State Communications, 2001, 119, 163-167.	1.9	1
74	Surface relaxation frequency of ground-state exciton in quantum wells. Microelectronics Journal, 2002, 33, 375-378.	2.0	1
75	Resonant transparency of a photonic crystal containing layered superconductor as a defect. Low Temperature Physics, 2017, 43, 848-854.	0.6	1
76	Quantum discretization of Landau damping. Low Temperature Physics, 2018, 44, 1251-1260.	0.6	1
77	Gyrotropic superlattice as a transformer of light polarization. Low Temperature Physics, 2021, 47, 588-595.	0.6	1
78	Square-gradient scattering mechanism in surface-corrugated waveguides. Brazilian Journal of Physics, 2006, 36, 971-974.	1.4	1
79	Nonlinear electromagnetic generation of sound in a metal plate. Physical Review B, 1993, 48, 9434-9446.	3.2	0
80	Surface electron transport and quantum size effect in electron conductivity of thin films with statistically rough boundaries. European Physical Journal D, 1996, 46, 2525-2526.	0.4	0
81	Surface-induced broadening and shift of exciton ground-state resonance in quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2921-2925.	0.8	0
82	Localization Length for One-Dimensional Array of Dielectric Bi-Layers with Correlated Positional Disorder. , 2007, , .		0
83	Anomalous transmission in waveguides with correlated disorder in surface profiles. , 0, , 287-315.		0
84	Emanuil Aizikovich Kaner (1931â€“1986) On the 80th anniversary. Low Temperature Physics, 2011, 37, 893-894.	0.6	0
85	Discrimination of surface-scattering mechanisms in waveguides with a rough boundary of rectangular power spectrum. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1507-1514.	0.8	0
86	Analysis of polarized photoluminescence emission of ordered IIIâ€“V semiconductor quaternary alloys. Journal of Luminescence, 2016, 172, 249-253.	3.1	0
87	Narrow-pass-band filters based on binary superlattices with strong impedance contrast. Low Temperature Physics, 2017, 43, 914-918.	0.6	0
88	Excitation of weak and strong guided waves in a semiconductor slab and their strong coupling with confined magnetoexcitons. Physical Review B, 2022, 105, .	3.2	0