Pavel V Prudnikov

List of Publications by Year
in descending order

89 papers	688 citations	566801 15 h-index	610482 24 g-index
89 all docs	89 docs citations	89 times ranked	189 citing authors

#	Article	IF	Citations
1	Field-theory approach to critical behavior of systems with long-range correlated defects. Physical Review B, 2000, 62, 8777-8786.	1.1	60
2	Short-time dynamics and critical behavior of the three-dimensional site-diluted Ising model. Physical Review E, 2010, 81, 011130.	0.8	40
3	Dimensionality crossover in critical behaviour of ultrathin ferromagnetic films. Journal of Magnetism and Magnetic Materials, 2015, 387, 77-82.	1.0	40
4	Computer simulation of the critical behavior of 3D disordered ising model. Journal of Experimental and Theoretical Physics, 2007, 105, 371-378.	0.2	31
5	Nonequilibrium critical behavior of model statistical systems and methods for the description of its features. Physics-Uspekhi, 2017, 60, 762-797.	0.8	31
6	Calculations of the dynamical critical exponent using the asymptotic series summation method. Theoretical and Mathematical Physics(Russian Federation), 2006, 147, 561-575.	0.3	30
7	Dimensional effects in ultrathin magnetic films. JETP Letters, 2014, 100, 446-450.	0.4	30
8	Static and dynamic critical properties of 3D systems with long-range correlated quenched defects. Journal of Physics A, 1999, 32, 8587-8600.	1.6	28
9	Short-Time Critical Dynamics of the Three-Dimensional Systems with Long-Range Correlated Disorder. Progress of Theoretical Physics, 2007, 117, 973-991.	2.0	26
10	Monte Carlo simulation of multilayer magnetic structures and calculation of the magnetoresistance coefficient. JETP Letters, 2015, 102, 668-673.	0.4	22
11	Renormalization-group description of nonequilibrium critical short-time relaxation processes: A three-loop approximation. Journal of Experimental and Theoretical Physics, 2008, 106, 1095-1101.	0.2	20
12	Nonequilibrium aging effects in the critical behavior of structurally disordered planar magnets. JETP Letters, 2015, 101, 539-544.	0.4	20
13	Monte Carlo calculations of the magnetoresistance in magnetic multilayer structures with giant magnetoresistance effects. Journal Physics D: Applied Physics, 2016, 49, 235002.	1.3	20
14	Investigation of the effects of aging and temperature dependence of the transverse rigidity of a system in the two-dimensional XY model. Physics of Metals and Metallography, 2014, 115, 1186-1193.	0.3	17
15	Aging and non-equilibrium critical phenomena in Monte Carlo simulations of 3D pure and diluted Ising models. Progress of Theoretical and Experimental Physics, 2015, 2015, 53A01-0.	1.8	17
16	Non-Equilibrium Critical Relaxation of the 3D Heisenberg Magnets with Long-Range Correlated Disorder. Progress of Theoretical Physics, 2012, 127, 369-382.	2.0	15
17	Influence of disorder on critical ageing in 3D Ising model. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 774-778.	0.9	15
18	Calculation of the fluctuation-dissipation ratio for the nonequilibrium critical behavior of disordered systems. JETP Letters, 2014, 98, 619-625.	0.4	13

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19	Monte Carlo investigations of the influence of structural defects on aging effects and the violation of the fluctuation-dissipation theorem for a nonequilibrium critical behavior in the three-dimensional Ising model. Journal of Experimental and Theoretical Physics, 2014, 118, 401-409.	0.2	13
20	Aging effects in the nonequilibrium behavior of multilayer magnetic superstructures. JETP Letters, 2016, 104, 776-783.	0.4	13
21	Influence of anisotropy on magnetoresistance in magnetic multilayer structures. Journal of Magnetism and Magnetic Materials, 2019, 482, 201-205.	1.0	13
22	Field-theoretic description of the multicritical behavior of systems with two order parameters. JETP Letters, 1998, 68, 950-956.	0.4	11
23	Nonequilibrium critical relaxation of structurally disordered systems in the short-time regime: Renormalization group description and computer simulation. Journal of Experimental and Theoretical Physics, 2010, 110, 253-264.	0.2	11
24	Universal Berezinskii-Kosterlitz-Thouless dynamic scaling in the intermediate time range in frustrated Heisenberg antiferromagnets on a triangular lattice. Physical Review B, 2017, 95, .	1.1	11
25	Superaging and Subaging Phenomena in a Nonequilibrium Critical Behavior of the Structurally Disordered Two-Dimensional XY Model. Journal of Experimental and Theoretical Physics, 2018, 126, 368-382.	0.2	11
26	Influence of disorder on ageing and memory effects in non-equilibrium critical dynamics of 3D Ising model relaxing from an ordered state. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 043303.	0.9	10
27	Influence of long-range correlated defects on critical ultrasound propagation in solids. Physical Review B, 2009, 80, .	1.1	9
28	Aging and memory effects in the nonequilibrium critical behavior of structurally disordered magnetic materials in the course of their evolution from the low-temperature initial state. JETP Letters, 2015, 102, 167-175.	0.4	9
29	Critical behavior of disordered systems with replica symmetry breaking. Journal of Experimental and Theoretical Physics, 2002, 95, 550-559.	0.2	7
30	Effects of Superaging and Percolation Crossover on the Nonequilibrium Critical Behavior of the Two-Dimensional Disordered Ising Model. JETP Letters, 2018, 107, 569-576.	0.4	7
31	Stability of critical behaviour of weakly disordered systems to introduction of potentials with replica symmetry breaking. Journal of Physics A, 2001, 34, L145-L152.	1.6	5
32	Non-equilibrium critical vortex dynamics of disordered 2D XY-model. Journal of Physics: Conference Series, 2016, 681, 012015.	0.3	5
33	Renormalization group description of the effect of structural defects on phase transitions in complex spin systems with random anisotropy effects and structural defects. Theoretical and Mathematical Physics(Russian Federation), 2017, 190, 359-365.	0.3	5
34	Analysis of the Effect of Different Initial States and Structural Defects on the Characteristics of the Nonequilibrium Critical Behavior of the 3D Ising Model. Journal of Experimental and Theoretical Physics, 2017, 125, 1102-1115.	0.2	5
35	Non-equilibrium critical behavior of the 3D classical Heisenberg model. Journal of Physics: Conference Series, 2019, 1163, 012020.	0.3	5
36	Non-equilibrium critical dynamics of multilayer magnetic structures. Journal of Magnetism and Magnetic Materials, 2019, 470, 143-146.	1.0	5

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37	The influence of disorder on the critical sound attenuation in solids. Journal of Physics Condensed Matter, 2005, 17, L485-L492.	0.7	4
38	Non-equilibrium critical dynamics of pure and diluted 2D*XY*-model. Journal of Physics: Conference Series, 2014, 510, 012014.	0.3	4
39	Manifestation of aging in giant magnetoresistance of the Co/Cu/Co nanostructure. Journal of Physics Communications, 2019, 3, 015002.	0.5	4
40	Non-equilibrium vortex annealing of structural disorder in Berezinskii-Kosterlitz-Thouless dynamics of the two-dimensional XY-model. Europhysics Letters, 2019, 128, 26002.	0.7	4
41	Boundary critical behaviour atm-axial Lifshitz points of semi-infinite systems with a surface plane perpendicular to a modulation axis. Journal of Physics A, 2006, 39, 7927-7942.	1.6	3
42	Monte Carlo simulation of critical properties of ultrathin anisotropic Heisenberg films. Journal of Physics: Conference Series, 2014, 510, 012024.	0.3	3
43	Monte Carlo simulation of magnetic multilayered structures with giant magnetoresistance effects. Journal of Physics: Conference Series, 2016, 681, 012016.	0.3	3
44	Monte Carlo simulation of the non-equilibrium critical dynamics of low-dimensional magnetics and multilayer structures. Lobachevskii Journal of Mathematics, 2017, 38, 944-947.	0.1	3
45	Aging Effects in the Nonequilibrium Behavior of Magnetic Superstructures and Their Manifestation in Magnetoresistance. Journal of Experimental and Theoretical Physics, 2018, 127, 731-741.	0.2	3
46	Specific Features of the Effect of Structural Defects on the Correlation and Interaction of Vortex Excitations in the Nonequilibrium BKT Dynamics of the Two-Dimensional XY Model. Journal of Experimental and Theoretical Physics, 2020, 131, 768-792.	0.2	3
47	Stability of the critical behavior of weakly disordered systems with respect to the introduction of an interaction potential breaking replica symmetry. Physics of the Solid State, 2001, 43, 1759-1764.	0.2	2
48	Anomalous ultrasound attenuation in solids during second-order phase transitions with allowance for relaxation effects. Physics of Metals and Metallography, 2007, 104, 221-227.	0.3	2
49	Effect of structural defects on anomalous ultrasound propagation in solids during second-order phase transitions. Journal of Experimental and Theoretical Physics, 2008, 106, 897-904.	0.2	2
50	Ageing and non-equilibrium critical phenomena in Monte Carlo simulations. Journal of Physics: Conference Series, 2014, 510, 012020.	0.3	2
51	Ageing properties of three-dimensional pure and site-diluted Ising ferromagnets. Journal of Physics: Conference Series, 2014, 510, 012015.	0.3	2
52	Monte Carlo Study of the Effect of Initial States and Structural Defects on Nonequilibrium Critical Behavior of the Three-Dimensional Ising Model. Physics of the Solid State, 2018, 60, 1098-1110.	0.2	2
53	Marginal Effect of Structural Defects on the Nonequilibrium Critical Behavior of the Two-Dimensional Ising Model. Journal of Experimental and Theoretical Physics, 2020, 130, 258-273.	0.2	2
54	Multicritical behavior of disordered systems with two order parameters. Physics of the Solid State, 2000, 42, 165-169.	0.2	1

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55	Stability of the critical behavior of weakly disordered systems against replica symmetry breaking. JETP Letters, 2001, 73, 135-140.	0.4	1
56	Nonequilibrium critical dynamics of structurally disordered systems with long-range correlated defects. JETP Letters, 2011, 93, 103-108.	0.4	1
57	Nonequilibrium critical behavior of highly disordered magnets with long-range defect correlation. Low Temperature Physics, 2014, 40, 443-449.	0.2	1
58	Monte-Carlo investigation of competition between uniaxial anisotropy, exchange and dipolar interactions in critical behavior of ultrathin magnetic films. Journal of Physics: Conference Series, 2016, 681, 012017.	0.3	1
59	Renormalization group description of the nonequilibrium critical dynamics of spin systems at the fixed space dimension d = 3. Theoretical and Mathematical Physics(Russian Federation), 2017, 190, 402-410.	0.3	1
60	Non-equilibrium critical dynamics of low-dimensional magnetics and multilayer structures. EPJ Web of Conferences, 2018, 185, 11009.	0.1	1
61	Dynamical Scaling in Time dependence of Correlation Length in Non-equilibrium Critical Relaxation of Pure and Site-diluted 2D XY-model. Journal of Physics: Conference Series, 2019, 1163, 012042.	0.3	1
62	Effect of the Initial States, the Anisotropy, and Structural Defects on a Nonequilibrium Critical Behavior of the Three-Dimensional Heisenberg Model. Physics of the Solid State, 2020, 62, 821-836.	0.2	1
63	Monte Carlo Simulation of Magnetic Multilayered Structures with the Effects of Giant Magnetoresistance. Journal of Siberian Federal University - Mathematics and Physics, 2017, 10, 65-70.	0.2	1
64	The effect of structural disorder on anomalous critical attenuation of ultrasound by solids. Russian Physics Journal, 2007, 50, 458-465.	0.2	0
65	Non-Equilibrium Critical Dynamics of Ferromagnets with Long Range Correlated Defects. Solid State Phenomena, 0, 190, 31-34.	0.3	0
66	Field-Theory Description of Nonequilibrium Critical Dynamics for Spin Systems. Solid State Phenomena, 0, 190, 23-26.	0.3	0
67	Ageing Phenomena in Two-Dimensional XY-Model. Solid State Phenomena, 0, 190, 3-6.	0.3	0
68	Non-Equilibrium Critical Relaxation of Heisenberg Ferromagnets with Long-Range Correlated Defects. Solid State Phenomena, 0, 190, 39-42.	0.3	0
69	Non-equilibrium critical behaviour of ultrathin magnetic and metamagnetic Ising films. Journal of Physics: Conference Series, 2014, 510, 012018.	0.3	0
70	Peculiarities of Non-Equilibrium Critical Behavior for 3D Diluted Ising Model with Evolution from Low-Temperature Initial State. Materials Science Forum, 0, 845, 85-88.	0.3	0
71	Monte Carlo Simulation of Thin Magnetic Films Critical Behavior. Materials Science Forum, 2016, 845, 89-92.	0.3	0
72	Non-equilibrium critical behavior of thin Ising films. Journal of Magnetism and Magnetic Materials, 2017, 440, 33-36.	1.0	0

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73	Magnetic properties of multilayers based on anisotropic Heisenberg films with dipolar long-range interaction. Journal of Physics: Conference Series, 2017, 903, 012018.	0.3	0
74	Monte Carlo simulation of aging phenomena in multilayer magnetic structures. EPJ Web of Conferences, 2018, 185, 03008.	0.1	0
75	Non-equilibrium critical behavior of Heisenberg thin films. EPJ Web of Conferences, 2018, 185, 11005.	0.1	0
76	Calculation of CPP-and CIP-magnitoresistance in multilayer magnetic structures. EPJ Web of Conferences, 2018, 185, 01009.	0.1	0
77	Influence of initial states and structure defects on non-equilibrium critical behavior of 3D and 2D Ising models. Journal of Physics: Conference Series, 2019, 1163, 012005.	0.3	0
78	Disorder Aggregation by Vortices in Non-Equilibrium Critical Annealing of Two-Dimensional XY-model. Journal of Physics: Conference Series, 2019, 1163, 012039.	0.3	0
79	Peculiarities of non-equilibrium critical behavior of site-diluted 2D Ising model. Journal of Physics: Conference Series, 2019, 1163, 012016.	0.3	0
80	Dimensional Crossover in Critical Behavior of Thin XY-films: Equilibrium and Non-equilibrium Properties. Journal of Physics: Conference Series, 2019, 1163, 012041.	0.3	0
81	Nonequilibrium critical dynamics of low-dimensional frustrated magnets and multilayer structures. Journal of Physics: Conference Series, 2019, 1163, 012068.	0.3	0
82	Non-equilibrium vortex annealing of structural disorder in the critical relaxation of diluted two-dimensional XY-model. Journal of Physics: Conference Series, 2019, 1389, 012024.	0.3	0
83	The dimensional crossover in critical behavior of layered XY-model. Journal of Physics: Conference Series, 2019, 1389, 012025.	0.3	0
84	Influence of diffuse interfaces on the magnetoresistance in trilayer magnetic structures. Journal of Physics: Conference Series, 2019, 1389, 012155.	0.3	0
85	Non-equilibrium critical behavior of multilayer magnetic nanostructures with a non-magnetic metal substrate. Journal of Physics: Conference Series, 2021, 1740, 012010.	0.3	0
86	Features of the Non-equilibrium Critical Dynamics in 3D Pure and Diluted Ising-like Ferromagnets. Journal of Siberian Federal University - Mathematics and Physics, 2016, 9, 463-468.	0.2	0
87	Bilayer Magnetic Structures with Dipolar Interaction in Magnetic Field. Journal of Siberian Federal University - Mathematics and Physics, 2017, 10, 257-260.	0.2	0
88	Influence of an Initial States on the Critical Relaxation of Ising-like Spin Systems. Journal of Siberian Federal University - Mathematics and Physics, 2018, 11, 295-299.	0.2	0
89	The Calculation of Magnetoresistance Coefficient for Multilayer Magnetic Structures. Journal of Siberian Federal University - Mathematics and Physics, 2018, 11, 733-737.	0.2	0