

# Sergey Panyukov

## List of Publications by Citations

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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.

89

papers

3,275

citations

29

h-index

56

g-index

92

ext. papers

3,554

ext. citations

4.1

avg, IF

5.51

L-index

#	Paper	IF	Citations
89	Elasticity of Polymer Networks. <i>Macromolecules</i> , <b>2002</b> , 35, 6670-6686	5.5	346
88	Coexistence of superconductivity and magnetism theoretical predictions and experimental results. <i>Advances in Physics</i> , <b>1985</b> , 34, 175-261	18.4	271
87	Mobility of Nonsticky Nanoparticles in Polymer Liquids. <i>Macromolecules</i> , <b>2011</b> , 44, 7853-7863	5.5	251
86	Statistical physics of polymer gels. <i>Physics Reports</i> , <b>1996</b> , 269, 1-131	27.7	198
85	Nonaffine Deformation and Elasticity of Polymer Networks. <i>Macromolecules</i> , <b>1997</b> , 30, 8036-8044	5.5	184
84	Hopping Diffusion of Nanoparticles in Polymer Matrices. <i>Macromolecules</i> , <b>2015</b> , 48, 847-862	5.5	145
83	Molecular structure of bottlebrush polymers in melts. <i>Science Advances</i> , <b>2016</b> , 2, e1601478	14.3	144
82	Polymer Gels: Frozen Inhomogeneities and Density Fluctuations. <i>Macromolecules</i> , <b>1996</b> , 29, 7960-7975	5.5	125
81	Self-Similar Conformations and Dynamics in Entangled Melts and Solutions of Nonconcatenated Ring Polymers. <i>Macromolecules</i> , <b>2016</b> , 49, 708-722	5.5	98
80	Coulomb blockade and nonperturbative ground-state properties of ultrasmall tunnel junctions. <i>Physical Review Letters</i> , <b>1991</b> , 67, 3168-3171	7.4	98
79	Tension amplification in molecular brushes in solutions and on substrates. <i>Journal of Physical Chemistry B</i> , <b>2009</b> , 113, 3750-68	3.4	90
78	Scattering Profiles of Charged Gels: Frozen Inhomogeneities, Thermal Fluctuations, and Microphase Separation. <i>Macromolecules</i> , <b>1997</b> , 30, 301-312	5.5	89
77	Small angle neutron scattering studies on structural inhomogeneities in polymer gels: irradiation cross-linked gels vs chemically cross-linked gels. <i>Polymer</i> , <b>2002</b> , 43, 5289-5297	3.9	76
76	Long-Range Correlations in a Polymer Chain Due to Its Connectivity. <i>Macromolecules</i> , <b>2008</b> , 41, 1475-1485	5.5	55
75	Quantum fluctuations and quantum dynamics of small Josephson junctions. <i>Journal of Low Temperature Physics</i> , <b>1988</b> , 73, 1-32	1.3	52
74	Fluctuating filaments: statistical mechanics of helices. <i>Physical Review E</i> , <b>2000</b> , 62, 7135-46	2.4	48
73	Unexpected Stretching of Entangled Ring Macromolecules. <i>Physical Review Letters</i> , <b>2019</b> , 122, 208001	7.4	47

72	Thermal fluctuations of elastic filaments with spontaneous curvature and torsion. <i>Physical Review Letters</i> , <b>2000</b> , 85, 2404-7	7.4	46
71	Microphase separation in correlated random copolymers: Mean-field theory and fluctuation corrections. <i>Physical Review E</i> , <b>1998</b> , 57, 6902-6912	2.4	43
70	Amplification of tension in branched macromolecules. <i>Physical Review Letters</i> , <b>2009</b> , 102, 148301	7.4	42
69	Structure of Liquid Coacervates Formed by Oppositely Charged Polyelectrolytes. <i>Macromolecules</i> , <b>2018</b> , 51, 9572-9588	5.5	40
68	Enhanced nanochannel translocation and localization of genomic DNA molecules using three-dimensional nanofunnels. <i>Nature Communications</i> , <b>2017</b> , 8, 807	17.4	39
67	Volume Transitions, Phase Separation, and Anisotropic Surface Phases in Charged Gels. <i>Macromolecules</i> , <b>1996</b> , 29, 8530-8537	5.5	39
66	Bond Tension in Tethered Macromolecules. <i>Macromolecules</i> , <b>2011</b> , 44, 4520-4529	5.5	38
65	Quantitative Adjustment to the Molecular Energy Parameter in the Lake-Thomas Theory of Polymer Fracture Energy. <i>Macromolecules</i> , <b>2019</b> , 52, 2772-2777	5.5	37
64	Loops in Polymer Networks. <i>Macromolecules</i> , <b>2019</b> , 52, 4145-4153	5.5	32
63	Theory of magnetic structure in reentrant magnetic superconductors HoMo6S8 and ErRh4B4. <i>Physical Review B</i> , <b>1983</b> , 28, 1370-1388	3.3	32
62	Magnetic superconductors. <i>Uspekhi Fizicheskikh Nauk</i> , <b>1984</b> , 144, 597	0.5	32
61	Fluctuating elastic rings: statics and dynamics. <i>Physical Review E</i> , <b>2001</b> , 64, 011909	2.4	29
60	Universal behavior of hydrogels confined to narrow capillaries. <i>Scientific Reports</i> , <b>2015</b> , 5, 17017	4.9	28
59	New statistical approach to the description of spatial inhomogeneous states in heteropolymer solutions. <i>Journal De Physique II</i> , <b>1992</b> , 2, 1973-1993		27
58	Magnetic superconductors. <i>Uspekhi Fizicheskikh Nauk</i> , <b>1984</b> , 27, 927-953		25
57	The oscillation dependence of the critical current on the exchange field of ferromagnetic metals (F) in Josephson junction S-F-S. <i>Solid State Communications</i> , <b>1982</b> , 44, 539-542	1.6	24
56	Graphs in Chemical Physics of Polymers. <i>Advances in Chemical Physics</i> , <b>2007</b> , 115-326		23
55	On the deformation of fluctuating chiral ribbons. <i>Europhysics Letters</i> , <b>2002</b> , 57, 512-518	1.6	20

54	Dynamics of a quantum dissipative system: Duality between coordinate and quasimomentum spaces. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1987</b> , 120, 306-311	2.3	20
53	Quantum coherence and phase transitions in granular superconductors with dissipation. I. Ordered arrays. <i>Journal of Low Temperature Physics</i> , <b>1989</b> , 75, 361-388	1.3	18
52	Microphase separation in multiblock copolymers. <i>Journal of Experimental and Theoretical Physics</i> , <b>1997</b> , 85, 183-188	1	17
51	A correct account of the non-local terms in the Landau theory of phase transitions in polydisperse heteropolymers. <i>Journal of Physics Condensed Matter</i> , <b>2006</b> , 18, L43-L48	1.8	17
50	Stress-Induced Ordering in Microphase-Separated Multicomponent Networks. <i>Macromolecules</i> , <b>1996</b> , 29, 8220-8230	5.5	17
49	Interaction between randomly charged rods and plates: Energy landscapes, stick slip, and recognition at a distance. <i>Physical Review E</i> , <b>1997</b> , 56, 7053-7066	2.4	16
48	Phase diagram of microphase-separated multiblock copolymers. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>1998</b> , 249, 321-326	3.3	16
47	Solution Properties of a Fluorinated Alkyl Methacrylate Polymer in Carbon Dioxide. <i>Macromolecules</i> , <b>2006</b> , 39, 3427-3434	5.5	15
46	Quantum fluctuations and dissipative phase transition in granular superconductors. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1987</b> , 124, 325-329	2.3	15
45	Theory of Flexible Polymer Networks: Elasticity and Heterogeneities. <i>Polymers</i> , <b>2020</b> , 12,	4.5	13
44	Domain-like magnetic structure in superconductors of ErRh4B4 and HoMo6S8 type. <i>Solid State Communications</i> , <b>1982</b> , 44, 1247-1251	1.6	13
43	Ion Pairing and the Structure of Gel Coacervates. <i>Macromolecules</i> , <b>2020</b> , 53, 9420-9442	5.5	12
42	Transport properties of mesoscopic tunnel junctions: nonperturbative analysis. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1993</b> , 183, 115-122	2.3	11
41	Statics and Dynamics of the Liquid- and Solidlike Degrees of Freedom in Lightly Cross-Linked Polymer Networks. <i>Journal De Physique, I</i> , <b>1997</b> , 7, 273-289		9
40	Quantum fluctuations and the current-phase relation in Josephson junctions and SQUIDs. <i>Physica B: Condensed Matter</i> , <b>1988</b> , 152, 162-164	2.8	9
39	The effect of thermodynamic fluctuations on the formation of superstructures in random heteropolymers. <i>JETP Letters</i> , <b>1996</b> , 64, 197-201	1.2	8
38	Inhomogeneous magnetic structure in clean magnetic superconductors. <i>Journal of Low Temperature Physics</i> , <b>1983</b> , 52, 137-162	1.3	8
37	Induced ferromagnetism in ErRh4B4. <i>Solid State Communications</i> , <b>1983</b> , 46, 133-137	1.6	8

36	Molecular theory of solutions and blends of heteropolymers. I. Thermodynamics of amorphous multicomponent polymer systems. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>1998</b> , 36, 937-958 <sup>2.6</sup>	7
35	Solid Elasticity and Liquid-Like Behaviour in Randomly Crosslinked Polymer Networks. <i>Europhysics Letters</i> , <b>1994</b> , 28, 149-154	1.6 7
34	Single electron tunneling near the Coulomb blockade threshold. <i>Physica B: Condensed Matter</i> , <b>1994</b> , 203, 417-422	2.8 7
33	Glassy states with frozen-in currents and paramagnetism of granular high temperature superconductors. <i>Physica B: Condensed Matter</i> , <b>1994</b> , 203, 527-531	2.8 7
32	Correlation functions and transport properties of granular arrays with ohmic dissipation. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1991</b> , 156, 119-126	2.3 7
31	Coexistence of ferromagnetism and superconductivity in ErRh4B4 and HoMo6S8: Exchange or electromagnetic mechanism?. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1982</b> , 89, 93-95	2.3 7
30	Theory of radiation-induced shape-change of graphite. <i>Atomic Energy</i> , <b>2008</b> , 105, 32-41	0.4 6
29	Statistical physics of interacting dislocation loops and their effect on the elastic moduli of isotropic solids. <i>Physical Review B</i> , <b>1999</b> , 59, 13657-13671	3.3 6
28	Quantum coherence and phase transitions in granular superconductors with dissipation. II. Effect of disorder. <i>Journal of Low Temperature Physics</i> , <b>1989</b> , 75, 389-398	1.3 6
27	Quantum Dynamics of Small Josephson Junctions. <i>Japanese Journal of Applied Physics</i> , <b>1987</b> , 26, 1403	1.4 6
26	The role of the exchange and magnetic dipole interactions in the superconductors with helical magnetic ordering. <i>Solid State Communications</i> , <b>1981</b> , 40, 683-686	1.6 5
25	Magnetic superconductors of HoMo6S8 type: The effect of magnetic field and supercurrent. <i>Solid State Communications</i> , <b>1982</b> , 43, 135-139	1.6 5
24	Dissipative Phase Transition in Granular Superconductors. <i>Japanese Journal of Applied Physics</i> , <b>1987</b> , 26, 1327	1.4 5
23	Theory of heterogeneities in polymer networks. <i>Polymer Science - Series A</i> , <b>2016</b> , 58, 886-898	1.2 4
22	Ferromagnetic superconductors: Effect of disorder on the coexistence phase in ErRh4B4 and pseudoternary systems. <i>Journal of Low Temperature Physics</i> , <b>1985</b> , 59, 487-508	1.3 4
21	Effect of impurities on the properties of superconductor with helical order of localized spins. <i>Solid State Communications</i> , <b>1981</b> , 37, 671-675	1.6 4
20	Macroscopic Quantum Shift of the Flux and Quantum Tunneling. <i>Japanese Journal of Applied Physics</i> , <b>1987</b> , 26, 1401	1.4 4
19	Irradiation induced dimensional changes in graphite: The influence of sample size. <i>Journal of Nuclear Materials</i> , <b>2012</b> , 420, 241-251	3.3 3

18	Domain wall structure and the properties of the coexistence phase in ferromagnetic superconductors HoMo6S8 and HoMo6Se8. <i>Solid State Communications</i> , <b>1985</b> , 53, 243-247	1.6	3
17	Cross-Linking Patterns and Their Images in Swollen and Deformed Gels. <i>Macromolecules</i> , <b>2015</b> , 48, 7378-7381	3.3	2
16	Relation between micro- and macrodeformations and the elasticity constants in application to radiation induced effects in a graphite reactor. <i>Atomic Energy</i> , <b>2009</b> , 107, 326-332	0.4	2
15	Microstructure and phase diagrams of polymer gels. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>1998</b> , 249, 239-244	3.3	2
14	Charge disorder in granular arrays. <i>European Physical Journal D</i> , <b>1996</b> , 46, 629-630		2
13	Recent developments in the theory of polymer gels. <i>Journal of Computer-Aided Materials Design</i> , <b>1996</b> , 3, 281-288		2
12	Irradiation induced dimensional changes in bulk graphite: The theory. <i>Journal of Nuclear Materials</i> , <b>2013</b> , 439, 72-83	3.3	1
11	Explanation of Anomalous Scaling of Swollen Entangled Chains. <i>Macromolecules</i> , <b>2005</b> , 38, 3511-3514	5.5	1
10	Metastable lattice of droplets in phase separating polymer blends. <i>Physical Review E</i> , <b>2002</b> , 65, 061803	2.4	1
9	New approaches to statistical thermodynamics of blends containing copolymers. <i>Macromolecular Symposia</i> , <b>2000</b> , 149, 37-42	0.8	1
8	The ferromagnetic analogy applied to polymers with a fixed chain length distribution. <i>Polymer Science USSR</i> , <b>1990</b> , 32, 1247-1254		1
7	Scaling pattern of swelling of polymer networks. <i>Polymer Science USSR</i> , <b>1990</b> , 32, 682-689		1
6	Spin-glass state in a disordered sine-Gordon model. <i>Physica B: Condensed Matter</i> , <b>1988</b> , 152, 70-71	2.8	1
5	The mechanism of solute-enriched clusters formation in neutron-irradiated pressure vessel steels: The case of Fe-Cu model alloys. <i>Journal of Nuclear Materials</i> , <b>2016</b> , 477, 193-204	3.3	0
4	On the kinetic theory of energy losses in a randomly heterogeneous medium. <i>JETP Letters</i> , <b>2011</b> , 94, 255-257	1.2	
3	Mechanism of surface landscape formation in liquid photopolymerized compositions. <i>Mendeleev Communications</i> , <b>2009</b> , 19, 206-207	1.9	
2	Buckling of spontaneously twisted ribbons. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2002</b> , 314, 125-129	3.3	
1	Feasibility of studying the uniformity of a sample from phase transition parameters using voltage measurements transverse to the current. <i>Radiophysics and Quantum Electronics</i> , <b>1987</b> , 30, 236-240	0.7	

