

# Aleksandr I Volokitin

## List of Publications by Year in descending order

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64  
papers

3,502  
citations

186265

28  
h-index

133252

59  
g-index

72  
all docs

72  
docs citations

72  
times ranked

2158  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electric double layer effect in an extreme near-field heat transfer between metal surfaces. Physical Review B, 2021, 103, .	3.2	12
2	Resonant photon emission during relative sliding of two dielectric plates. Modern Physics Letters A, 2020, 35, 2040011.	1.2	3
3	Contribution of the acoustic waves to near-field heat transfer. Journal of Physics Condensed Matter, 2020, 32, 215001.	1.8	16
4	Electric field effect in heat transfer in 2D devices. Journal of Physics Condensed Matter, 2020, 32, 255301.	1.8	9
5	Effect of an Electric Field in the Heat Transfer between Metals in the Extreme Near Field. JETP Letters, 2019, 109, 749-754.	1.4	25
6	Effect of Resonant Photon Emission in Radiative Heat Transfer and Generation. JETP Letters, 2019, 110, 397-404.	1.4	1
7	Singular Resonance in Fluctuation-Induced Electromagnetic Phenomena at the Rotation of a Nanoparticle near the Surface of a Condensed Medium. JETP Letters, 2018, 108, 147-154.	1.4	3
8	Singular resonance in fluctuation-electromagnetic phenomena during the rotation of a nanoparticle near a surface. Europhysics Letters, 2018, 122, 14003.	2.0	2
9	Electromagnetic Fluctuations at the Nanoscale. Nanoscience and Technology, 2017, , .	1.5	31
10	Anomalous Doppler-effect singularities in radiative heat generation, interaction forces, and frictional torque for two rotating nanoparticles. Physical Review A, 2017, 96, .	2.5	6
11	Singularities in radiative heat generation and interaction forces for two rotating nanoparticles caused by the anomalous Doppler effect. JETP Letters, 2017, 105, 733-738.	1.4	3
12	Casimir frictional drag force between a $\text{SiO}_2$ and a graphene-covered $\text{SiO}_2$ . Physical Review B, 2016, 94, .	3.2	21
13	Quantum Vavilov-Cherenkov radiation from shearing two transparent dielectric plates. Physical Review B, 2016, 93, .	3.2	3
14	Casimir friction force between a $\text{SiO}_2$ probe and a graphene-coated $\text{SiO}_2$ substrate. JETP Letters, 2016, 104, 504-509.	1.4	12
15	Quantum Cherenkov radiation at the motion of a small neutral particle parallel to the surface of a transparent dielectric. JETP Letters, 2016, 103, 228-233.	1.4	9
16	Quantum Cherenkov radiation at the relative sliding of two transparent plates. JETP Letters, 2016, 103, 223-227.	1.4	1
17	Friction force at the motion of a small relativistic neutral particle with respect to blackbody radiation. JETP Letters, 2015, 101, 427-433.	1.4	5
18	Blackbody friction force on a relativistic small neutral particle. Physical Review A, 2015, 91, .	2.5	12

#	ARTICLE	IF	CITATIONS
19	Comment on "Fully covariant radiation force on a polarizable particle". New Journal of Physics, 2014, 16, 118001.	2.9	12
20	Influence of electric current on the Casimir forces between graphene sheets. Europhysics Letters, 2013, 103, 24002.	2.0	19
21	Contact electrification and the work of adhesion. Europhysics Letters, 2013, 103, 36003.	2.0	15
22	Phononic heat transfer across an interface: thermal boundary resistance. Journal of Physics Condensed Matter, 2011, 23, 045009.	1.8	59
23	Quantum Friction. Physical Review Letters, 2011, 106, 094502.	7.8	104
24	Near-field radiative heat transfer and van der Waals friction between closely spaced graphene and amorphous SiO <sub>2</sub> . Journal of Physics: Conference Series, 2011, 291, 012018.	0.4	2
25	Comment on "No quantum friction between uniformly moving plates". New Journal of Physics, 2011, 13, 068001.	2.9	19
26	Near-field radiative heat transfer between closely spaced graphene and amorphous SiO $\times 2$ . Physical Review B, 2011, 83, .	3.2	67
27	Heat transfer between elastic solids with randomly rough surfaces. European Physical Journal E, 2010, 31, 3-24.	1.6	78
28	Theory of the interaction forces and the radiative heat transfer between moving bodies. Physical Review B, 2008, 78, .	3.2	79
29	On the origin of Amontons' friction law. Journal of Physics Condensed Matter, 2008, 20, 395006.	1.8	59
30	van der Waals frictional drag induced by liquid flow in low-dimensional systems. Physical Review B, 2008, 77, .	3.2	5
31	Title is missing!. Physics-Uspexhi, 2007, 50, 879.	2.2	30
32	Vibrational heating of molecules adsorbed on insulating surfaces using localized photon tunneling. Physical Review B, 2007, 75, .	3.2	5
33	Near-field radiative heat transfer and noncontact friction. Reviews of Modern Physics, 2007, 79, 1291-1329.	45.6	613
34	Giant enhancement of noncontact friction between closely spaced bodies by dielectric films and two-dimensional systems. Journal of Experimental and Theoretical Physics, 2007, 104, 96-110.	0.9	15
35	Theory of Noncontact Friction. Nanoscience and Technology, 2007, , 393-438.	1.5	0
36	Rubber friction on smooth surfaces. European Physical Journal E, 2006, 21, 69-80.	1.6	95

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37	Enhancement of noncontact friction between closely spaced bodies by two-dimensional systems. <i>Physical Review B</i> , 2006, 73, .	3.2	30
38	Quantum field theory of van der Waals friction. <i>Physical Review B</i> , 2006, 74, .	3.2	31
39	Adsorbate vibrational mode enhancement of radiative heat transfer and van der Waals friction. <i>Surface Science</i> , 2005, 587, 88-101.	1.9	4
40	Adsorbate-Induced Enhancement of Electrostatic Noncontact Friction. <i>Physical Review Letters</i> , 2005, 94, 086104.	7.8	54
41	On the nature of surface roughness with application to contact mechanics, sealing, rubber friction and adhesion. <i>Journal of Physics Condensed Matter</i> , 2005, 17, R1-R62.	1.8	748
42	Resonant photon tunneling enhancement of the radiative heat transfer. <i>Physical Review B</i> , 2004, 69, .	3.2	137
43	Role of the external pressure on the dewetting of soft interfaces. <i>European Physical Journal E</i> , 2003, 11, 409-413.	1.6	29
44	Adsorbate vibrational mode enhancement of radiative heat transfer. <i>JETP Letters</i> , 2003, 78, 457-460.	1.4	15
45	Noncontact friction between nanostructures. <i>Physical Review B</i> , 2003, 68, .	3.2	69
46	Resonant Photon Tunneling Enhancement of the van der Waals Friction. <i>Physical Review Letters</i> , 2003, 91, 106101.	7.8	72
47	Theory of rubber friction: Nonstationary sliding. <i>Physical Review B</i> , 2002, 65, .	3.2	28
48	Boundary lubrication: Squeeze-out dynamics of a compressible two-dimensional liquid. <i>Physical Review B</i> , 2002, 66, .	3.2	5
49	Dissipative van der Waals interaction between a small particle and a metal surface. <i>Physical Review B</i> , 2002, 65, .	3.2	72
50	The frictional drag force between quantum wells mediated by a fluctuating electromagnetic field. <i>Journal of Physics Condensed Matter</i> , 2001, 13, 859-873.	1.8	28
51	Radiative heat transfer between nanostructures. <i>Physical Review B</i> , 2001, 63, .	3.2	244
52	Comment on "Brownian Motion of Microscopic Solids under the Action of Fluctuating Electromagnetic Fields". <i>Physical Review Letters</i> , 2000, 84, 3504-3504.	7.8	43
53	Dynamical interactions in sliding friction. <i>Surface Science</i> , 2000, 457, 345-356.	1.9	9
54	Theory of friction: the contribution from a fluctuating electromagnetic field. <i>Journal of Physics Condensed Matter</i> , 1999, 11, 345-359.	1.8	93

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55	Sliding friction: the contribution from defects. Journal of Physics Condensed Matter, 1997, 9, 2869-2889.	1.8	10
56	Electronic and phononic friction. , 1996, , 253-264.		0
57	Electronic friction of physisorbed molecules. Journal of Chemical Physics, 1995, 103, 8679-8683.	3.0	78
58	Quantum theory of infrared-reflection spectroscopy from adsorbate-covered metal surfaces in the anomalous-skin-effect frequency region. Physical Review B, 1995, 52, 2899-2906.	3.2	31
59	Adsorbate vibrational dynamics in the anomalous skin effect frequency region. Surface Science, 1994, 317, L1141-L1146.	1.9	38
60	Infrared reflection-absorption spectroscopy of dipole-forbidden adsorbate vibrations. Surface Science, 1994, 310, 314-336.	1.9	83
61	FTIR overtone spectroscopy on surfaces. The C <sup>16</sup> O mode in chemisorbed methoxy on Ni(111). Chemical Physics Letters, 1993, 208, 414-419.	2.6	49
62	On the origin of anti-absorption resonances in adsorbate vibrational spectroscopy. Chemical Physics Letters, 1991, 185, 292-297.	2.6	37
63	Cubic anharmonicity and multiphonon vibrational relaxation of adsorbed molecules. Chemical Physics Letters, 1991, 184, 301-304.	2.6	4
64	Isolated solutions of a local polaron model. Theoretical and Mathematical Physics(Russian) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 Td	0.9	0