

# Alexei V Ivlev

## List of Publications by Year in descending order

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Version: 2024-02-01

48  
papers

2,183  
citations

331670

21  
h-index

214800

47  
g-index

48  
all docs

48  
docs citations

48  
times ranked

1158  
citing authors

#	ARTICLE	IF	CITATIONS
1	Complex plasmas: An interdisciplinary research field. <i>Reviews of Modern Physics</i> , 2009, 81, 1353-1404.	45.6	655
2	Complex Plasmas and Colloidal Dispersions. <i>Series in Soft Condensed Matter</i> , 2012, , .	0.1	275
3	PKE-Nefedov*: plasma crystal experiments on the International Space Station. <i>New Journal of Physics</i> , 2003, 5, 33-33.	2.9	232
4	Cosmic-ray ionisation in circumstellar discs. <i>Astronomy and Astrophysics</i> , 2018, 614, A111.	5.1	111
5	Complex plasma – the plasma state of soft matter. <i>Soft Matter</i> , 2011, 7, 1287-1298.	2.7	86
6	Highly Resolved Fluid Flows: “Liquid Plasmas” at the Kinetic Level. <i>Physical Review Letters</i> , 2004, 92, 175004.	7.8	80
7	Impact of Low-Energy Cosmic Rays on Star Formation. <i>Space Science Reviews</i> , 2020, 216, 1.	8.1	67
8	Penetration of Cosmic Rays into Dense Molecular Clouds: Role of Diffuse Envelopes. <i>Astrophysical Journal</i> , 2018, 855, 23.	4.5	52
9	Tunable two-dimensional assembly of colloidal particles in rotating electric fields. <i>Scientific Reports</i> , 2017, 7, 13727.	3.3	51
10	Charge-induced gelation of microparticles. <i>New Journal of Physics</i> , 2005, 7, 227-227.	2.9	32
11	Interparticle Attraction in 2D Complex Plasmas. <i>Physical Review Letters</i> , 2016, 116, 125001.	7.8	32
12	Production of atomic hydrogen by cosmic rays in dark clouds. <i>Astronomy and Astrophysics</i> , 2018, 619, A144.	5.1	31
13	Diffusive versus Free-streaming Cosmic-Ray Transport in Molecular Clouds. <i>Astrophysical Journal</i> , 2019, 879, 14.	4.5	31
14	A review of liquid and crystalline plasmas – new physical states of matter?. <i>Plasma Physics and Controlled Fusion</i> , 2002, 44, B263-B277.	2.1	30
15	Agglomeration of microparticles in complex plasmas. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	26
16	Pair correlations in classical crystals: The shortest-graph method. <i>Journal of Chemical Physics</i> , 2015, 143, 034506.	3.0	26
17	Magnetic Mirroring and Focusing of Cosmic Rays. <i>Astrophysical Journal</i> , 2018, 863, 188.	4.5	26
18	Slow Dynamics in a Quasi-Two-Dimensional Binary Complex Plasma. <i>Physical Review Letters</i> , 2019, 123, 185002.	7.8	25

#	ARTICLE	IF	CITATIONS
19	Gas and Dust Temperature in Prestellar Cores Revisited: New Limits on Cosmic-Ray Ionization Rate. <i>Astrophysical Journal</i> , 2019, 884, 176.	4.5	25
20	Dissipative phase transitions in systems with nonreciprocal effective interactions. <i>Soft Matter</i> , 2018, 14, 9720-9729.	2.7	23
21	Rapid elimination of small dust grains in molecular clouds. <i>Astronomy and Astrophysics</i> , 2020, 641, A39.	5.1	23
22	Interpolation method for pair correlations in classical crystals. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 235401.	1.8	22
23	Emerging activity in bilayered dispersions with wake-mediated interactions. <i>Journal of Chemical Physics</i> , 2016, 144, 224901.	3.0	21
24	Electrorheological Complex Plasmas. <i>IEEE Transactions on Plasma Science</i> , 2010, 38, 733-740.	1.3	18
25	Dust charge distribution in the interstellar medium. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 485, 1220-1247.	4.4	16
26	Microscopic theory for anisotropic pair correlations in driven binary mixtures. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 464115.	1.8	15
27	Gamma-Ray Emission from Molecular Clouds Generated by Penetrating Cosmic Rays. <i>Astrophysical Journal</i> , 2018, 868, 114.	4.5	15
28	Solid phases in electro- and magnetorheological systems. <i>Journal of Chemical Physics</i> , 2009, 130, 204513.	3.0	14
29	Inhibited Coagulation of Micron-size Dust Due to the Electrostatic Barrier. <i>Astrophysical Journal</i> , 2020, 889, 64.	4.5	13
30	Rigorous Theory for Secondary Cosmic-Ray Ionization. <i>Astrophysical Journal</i> , 2021, 909, 107.	4.5	13
31	Structure and dynamics of a glass-forming binary complex plasma with non-reciprocal interaction. <i>Europhysics Letters</i> , 2018, 123, 35001.	2.0	11
32	Impact of Magnetorotational Instability on Grain Growth in Protoplanetary Disks. I. Relevant Turbulence Properties. <i>Astrophysical Journal</i> , 2020, 891, 172.	4.5	11
33	Glass transition of charged particles in two-dimensional confinement. <i>Physical Review E</i> , 2015, 91, 052301.	2.1	10
34	Phase diagram of two-dimensional colloids with Yukawa repulsion and dipolar attraction. <i>Journal of Chemical Physics</i> , 2019, 150, 104903.	3.0	10
35	Impact of Magnetorotational Instability on Grain Growth in Protoplanetary Disks. II. Increased Grain Collisional Velocities. <i>Astrophysical Journal</i> , 2021, 917, 82.	4.5	9
36	Compact Dusty Clouds and Efficient $H_2$ Formation in Diffuse Interstellar Medium. <i>Astrophysical Journal</i> , 2018, 861, 30.	4.5	7

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37	Ice mantles on dust grains: dramatic variation of thickness with grain size. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 507, 6205-6214.	4.4	7
38	Cosmic-Ray Tracks in Astrophysical Ices: Modeling with the Geant4-DNA Monte Carlo Toolkit. <i>Astrophysical Journal</i> , 2020, 904, 189.	4.5	7
39	Formation of the Cosmic-Ray Halo: Galactic Spectrum of Primary Cosmic Rays. <i>Astrophysical Journal</i> , 2020, 903, 135.	4.5	5
40	Demixing in Binary Complex Plasma: Computer Simulation. <i>IEEE Transactions on Plasma Science</i> , 2011, 39, 2752-2753.	1.3	4
41	Exclusion of Cosmic Rays from Molecular Clouds by Self-generated Electric Fields. <i>Astrophysical Journal Letters</i> , 2020, 902, L25.	8.3	4
42	Self-modulation of Cosmic Rays in Molecular Clouds: Imprints in the Radio Observations. <i>Astrophysical Journal</i> , 2021, 921, 43.	4.5	3
43	Bursting Bubbles in a Complex Plasma. <i>IEEE Transactions on Plasma Science</i> , 2011, 39, 2726-2727.	1.3	2
44	Stopping power: Effect of the projectile deceleration. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	2
45	Thermal Damping of Weak Magnetosonic Turbulence in the Interstellar Medium. <i>Astrophysical Journal</i> , 2021, 922, 10.	4.5	2
46	Weakly anisotropic and string fluid phases in magnetorheological systems. <i>Journal of Magnetism and Magnetic Materials</i> , 2011, 323, 1368-1371.	2.3	1
47	Study of the Projectile Motion in a Dust Crystal Under Microgravity Conditions. <i>IEEE Transactions on Plasma Science</i> , 2014, 42, 2678-2679.	1.3	1
48	On a Possible Origin of the Gamma-ray Excess around the Galactic Center. <i>Symmetry</i> , 2021, 13, 1432.	2.2	1