Sergej S Zilitinkevich

List of Publications by Year
in descending order

71	3,096	218592	168321
papers	citations	26 h-index	53 g-index

86	86	86	3297
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhanced haze pollution by black carbon in megacities in China. Geophysical Research Letters, 2016, 43, 2873-2879.	1.5	590
2	Enhanced air pollution via aerosol-boundary layer feedback in China. Scientific Reports, 2016, 6, 18998.	1.6	285
3	Diurnal asymmetry to the observed global warming. International Journal of Climatology, 2017, 37, 79-93.	1.5	208
4	Calculation Of The Height Of The Stable Boundary Layer In Practical Applications. Boundary-Layer Meteorology, 2002, 105, 389-409.	1.2	148
5	A multi-limit formulation for the equilibrium depth of a stably stratified boundary layer. Boundary-Layer Meteorology, 1996, 81, 325-351.	1.2	106
6	Resistance and heat-transfer laws for stable and neutral planetary boundary layers: Old theory advanced and re-evaluated. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 1863-1892.	1.0	105
7	The Nature, Theory, and Modeling of Atmospheric Planetary Boundary Layers. Bulletin of the American Meteorological Society, 2011, 92, 123-128.	1.7	103
8	A Total Turbulent Energy Closure Model for Neutrally and Stably Stratified Atmospheric Boundary Layers. Journals of the Atmospheric Sciences, 2007, 64, 4113-4126.	0.6	97
9	Third-Order Transport and Nonlocal Turbulence Closures for Convective Boundary Layers*. Journals of the Atmospheric Sciences, 1999, 56, 3463-3477.	0.6	94
10	An extended similarity theory for the stably stratified atmospheric surface layer. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 1913-1923.	1.0	85
11	Diagnostic and prognostic equations for the depth of the stably stratified Ekman boundary layer. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 25-46.	1.0	78
12	Further comments on the equilibrium height of neutral and stable planetary boundary layers. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 265-271.	1.0	77
13	Similarity theory and calculation of turbulent fluxes at the surface for the stably stratified atmospheric boundary layer. Boundary-Layer Meteorology, 2007, 125, 193-205.	1.2	71
14	Third-order transport due to internal waves and non-local turbulence in the stably stratified surface layer. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 913-925.	1.0	70
15	MEGAPOLI: concept of multi-scale modelling of megacity impact on air quality and climate. Advances in Science and Research, 2010, 4, 115-120.	1.0	62
16	Towards improving the simulation of meteorological fields in urban areas through updated/advanced surface fluxes description. Atmospheric Chemistry and Physics, 2008, 8, 523-543.	1.9	60
17	Pan-Eurasian Experiment (PEEX): towards a holistic understanding of the feedbacks and interactions in the landâ€“atmosphereâ€“oceanâ€“society continuum in the northern Eurasian region. Atmospheric Chemistry and Physics, 2016, 16, 14421-14461.	1.9	57
18	The effect of baroclinicity on the equilibrium depth of neutral and stable planetary boundary layers. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 3339-3356.	1.0	54

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19	On the role of the planetary boundary layer depth in the climate system. Advances in Science and Research, 2010, 4, 63-69.	1.0	52
20	Introduction: The Pan-Eurasian Experiment (PEEX) â€“ multidisciplinary, multiscale and multicomponent research and capacity-building initiative. Atmospheric Chemistry and Physics, 2015, 15, 13085-13096.	1.9	49
21	Bag-breakup fragmentation as the dominant mechanism of sea-spray production in high winds. Scientific Reports, 2017, 7, 1614.	1.6	46
22	Formation of large-scale semiorganized structures in turbulent convection. Physical Review E, 2002, 66, 066305.	0.8	44
23	Revisiting the Turbulent Prandtl Number in an Idealized Atmospheric Surface Layer. Journals of the Atmospheric Sciences, 2015, 72, 2394-2410.	0.6	44
24	The â€œBag Breakupâ€•Spume Droplet Generation Mechanism at High Winds. Part I: Spray Generation Function. Journal of Physical Oceanography, 2018, 48, 2167-2188.	0.7	42
25	A similarity-theory model for wind profile and resistance law in stably stratified planetary boundary layers. Journal of Wind Engineering and Industrial Aerodynamics, 1998, 74-76, 209-218.	1.7	34
26	The â€œBag Breakupâ€•Spume Droplet Generation Mechanism at High Winds. Part II: Contribution to Momentum and Enthalpy Transfer. Journal of Physical Oceanography, 2018, 48, 2189-2207.	0.7	31
27	Surface Frictional Processes and Non-Local Heat/Mass Transfer in the Shear-Free Convective Boundary Layer. , 1998, , 83-113.		27
28	Role of Convective Structures and Background Turbulence in the Dry Convective Boundary Layer. Boundary-Layer Meteorology, 2013, 149, 323-353.	1.2	25
29	On the effect of sea spray on the aerodynamic surface drag under severe winds. Ocean Dynamics, 2016, 66, 659-669.	0.9	23
30	An extended similarity theory for the stably stratified atmospheric surface layer. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 1913-1923.	1.0	19
31	PAN EURASIAN EXPERIMENT (PEEX) - A RESEARCH INITIATIVE MEETING THE GRAND CHALLENGES OF THE CHANGING ENVIRONMENT OF THE NORTHERN PAN-EURASIAN ARCTIC-BOREAL AREAS. Geography, Environment, Sustainability, 2014, 7, 13-48.	0.6	19
32	The Effect of Foam on Waves and the Aerodynamic Roughness of the Water Surface at High Winds. Journal of Physical Oceanography, 2019, 49, 959-981.	0.7	17
33	Fire and vegetation dynamics in northwest Siberia during the last 60Âyears based on high-resolution remote sensing. Biogeosciences, 2021, 18, 207-228.	1.3	16
34	The Height of the Atmospheric Planetary Boundary layer: State of the Art and New Development. NATO Science for Peace and Security Series C: Environmental Security, 2012, , 147-161.	0.1	16
35	A generalized scaling for convective shear flows. Boundary-Layer Meteorology, 1994, 70, 51-78.	1.2	14
36	Closure Schemes for Stably Stratified Atmospheric Flows without Turbulence Cutoff. Journals of the Atmospheric Sciences, 2016, 73, 4817-4832.	0.6	14

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37	Dissipation rate of turbulent kinetic energy in stably stratified sheared flows. Atmospheric Chemistry and Physics, 2019, 19, 2489-2496.	1.9	14
38	Atmospheric boundary layer over steep surface waves. Ocean Dynamics, 2014, 64, 1153-1161.	0.9	12
39	An enhanced integrated approach to knowledgeable high-resolution environmental quality assessment. Environmental Science and Policy, 2021, 122, 1-13.	2.4	12
40	Acceleration of raindrop formation due to the tangling-clustering instability in a turbulent stratified atmosphere. Physical Review E, 2015, 92, 013012.	0.8	11
41	Research agenda for the Russian Far East and utilization of multi-platform comprehensive environmental observations. International Journal of Digital Earth, 2021, 14, 311-337.	1.6	11
42	Theoretical Model of the Thermocline in a Freshwater Basin. Journal of Physical Oceanography, 1992, 22, 988-996.	0.7	10
43	Temperature distribution and current system in a convectively mixed lake. Boundary-Layer Meteorology, 1994, 71, 219-234.	1.2	10
44	The resistance law for stably stratified atmospheric planetary boundary layers. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 2233-2243.	1.0	10
45	Phenomenology of wall-bounded Newtonian turbulence. Physical Review E, 2006, 73, 016303.	0.8	9
46	Roll vortices induce new particle formation bursts in the planetary boundary layer. Atmospheric Chemistry and Physics, 2020, 20, 11841-11854.	1.9	9
47	Overview: Recent advances in the understanding of the northern Eurasian environments and of the urban air quality in China â€“ a Pan-Eurasian Experiment (PEEX) programme perspective. Atmospheric Chemistry and Physics, 2022, 22, 4413-4469.	1.9	9
48	Momentum and buoyancy transfer in atmospheric turbulent boundary layer over wavy water surface â€“ Part 1: Harmonic wave. Nonlinear Processes in Geophysics, 2013, 20, 825-839.	0.6	8
49	Aeroelectric structures and turbulence in the atmospheric boundary layer. Nonlinear Processes in Geophysics, 2013, 20, 819-824.	0.6	8
50	Internal gravity waves in the energy and flux budget turbulence-closure theory for shear-free stably stratified flows. Physical Review E, 2019, 99, 063106.	0.8	8
51	Structuring of turbulence and its impact on basic features of Ekman boundary layers. Nonlinear Processes in Geophysics, 2013, 20, 589-604.	0.6	8
52	Terpene emissions from boreal wetlands can initiate stronger atmospheric new particle formation than boreal forests. Communications Earth & Environment, 2022, 3, .	2.6	8
53	Momentum and buoyancy transfer in atmospheric turbulent boundary layer over wavy water surface â€“ Part 2: Windâ€“wave spectra. Nonlinear Processes in Geophysics, 2013, 20, 841-856.	0.6	7
54	Energy and flux budget closure theory for passive scalar in stably stratified turbulence. Physics of Fluids, 2021, 33, .	1.6	7

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55	Supplement to 'Third-order transport due to internal waves and non-local turbulence in the stably stratified surface layer'. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 1029-1031.	1.0	6
56	On the Velocity Gradient in Stably Stratified Sheared Flows. Part 2: Observations and Models. Boundary-Layer Meteorology, 2010, 135, 513-517.	1.2	6
57	The Silk Road agenda of the Pan-Eurasian Experiment (PEEX) program. Big Earth Data, 2018, 2, 8-35.	2.0	6
58	Cryosphere: a kingdom of anomalies and diversity. Atmospheric Chemistry and Physics, 2018, 18, 6535-6542.	1.9	5
59	Links between observed micro-meteorological variability and land-use patterns in the highveld priority area of South Africa. Meteorology and Atmospheric Physics, 2012, 118, 129-142.	0.9	3
60	A new model for the CBL growth based on the turbulent kinetic energy equation. Environmental Fluid Mechanics, 2007, 7, 409-419.	0.7	2
61	Similarity theory and calculation of turbulent fluxes at the surface for the stably stratified atmospheric boundary layer. , 2007, , 37-49.		2
62	Comments on the Numerical Simulation of Homogeneous Stably-Stratified Turbulence. Boundary-Layer Meteorology, 2010, 136, 161-164.	1.2	2
63	Connecting ground-based in-situ observations, ground-based remote sensing and satellite data within the Pan Eurasian Experiment (PEEX) program. Proceedings of SPIE, 2014, , .	0.8	2
64	The Effect of Stratification on the Aerodynamic Roughness Length. , 2009, , 59-66.		1
65	Towards Revision of Conventional Flux-Profile Relationships for the Stably Stratified Atmospheric Surface Layer. , 2000, , 403-407.		1
66	Numerical simulation of small-scale mixing processes in the upper ocean and atmospheric boundary layer. Journal of Physics: Conference Series, 2016, 681, 012027.	0.3	0
67	The study of the effects of sea-spray drops on the marine atmospheric boundary layer by direct numerical simulation. Journal of Physics: Conference Series, 2018, 955, 012002.	0.3	0
68	The study of the unstably-stratified marine atmospheric boundary layer by direct numerical simulation. Journal of Physics: Conference Series, 2019, 1163, 012018.	0.3	0
69	Scaling for Convective Boundary Layers. , 1995, , 67-79.		0
70	A New Concept of the Third-Order Transport in Non-Local Turbulence Closure for Convective Boundary Layers. Fluid Mechanics and Its Applications, 1998, , 391-394.	0.1	0
71	ATMOSPHERIC CONVECTION OVER COMPLEX TERRAIN AND URBAN CANOPY: NON-LOCAL VENTILATION MECHANISMS AND APPLICATION TO POLLUTION-DISPERSION AND AIR-QUALITY PROBLEMS. , 2007, , 163-164.		0