Sergej S Zilitinkevich

List of Publications by Year
in descending order

71 papers	3,096 citations	218592 26 h-index	168321 53 g-index
86 all docs	86 docs citations	86 times ranked	3297 citing authors

#	Article	IF	Citations
1	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
2	Terpene emissions from boreal wetlands can initiate stronger atmospheric new particle formation than boreal forests. Communications Earth & Environment, 2022, 3, .	2.6	8
3	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
4	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
5	The resistance law for stably stratified atmospheric planetary boundary layers. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 2233-2243.	1.0	10
6	Energy and flux budget closure theory for passive scalar in stably stratified turbulence. Physics of Fluids, 2021, 33, .	1.6	7
7	An enhanced integrated approach to knowledgeable high-resolution environmental quality assessment. Environmental Science and Policy, 2021, 122, 1-13.	2.4	12
8	Roll vortices induce new particle formation bursts in the planetary boundary layer. Atmospheric Chemistry and Physics, 2020, 20, 11841-11854.	1.9	9
9	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
10	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
11	Dissipation rate of turbulent kinetic energy in stably stratified sheared flows. Atmospheric Chemistry and Physics, 2019, 19, 2489-2496.	1.9	14
12	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
13	The Silk Road agenda of the Pan-Eurasian Experiment (PEEX) program. Big Earth Data, 2018, 2, 8-35.	2.0	6
14	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
15	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
16	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
17	Cryosphere: a kingdom of anomalies and diversity. Atmospheric Chemistry and Physics, 2018, 18, 6535-6542.	1.9	5
18	Diurnal asymmetry to the observed global warming. International Journal of Climatology, 2017, 37, 79-93.	1.5	208

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19	Bag-breakup fragmentation as the dominant mechanism of sea-spray production in high winds. Scientific Reports, 2017, 7, 1614.	1.6	46
20	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
21	Enhanced haze pollution by black carbon in megacities in China. Geophysical Research Letters, 2016, 43, 2873-2879.	1.5	590
22	On the effect of sea spray on the aerodynamic surface drag under severe winds. Ocean Dynamics, 2016, 66, 659-669.	0.9	23
23	Closure Schemes for Stably Stratified Atmospheric Flows without Turbulence Cutoff. Journals of the Atmospheric Sciences, 2016, 73, 4817-4832.	0.6	14
24	Enhanced air pollution via aerosol-boundary layer feedback in China. Scientific Reports, 2016, 6, 18998.	1.6	285
25	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
26	Acceleration of raindrop formation due to the tangling-clustering instability in a turbulent stratified atmosphere. Physical Review E, 2015, 92, 013012.	0.8	11
27	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
28	Revisiting the Turbulent Prandtl Number in an Idealized Atmospheric Surface Layer. Journals of the Atmospheric Sciences, 2015, 72, 2394-2410.	0.6	44
29	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
30	Atmospheric boundary layer over steep surface waves. Ocean Dynamics, 2014, 64, 1153-1161.	0.9	12
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	Role of Convective Structures and Background Turbulence in the Dry Convective Boundary Layer. Boundary-Layer Meteorology, 2013, 149, 323-353.	1.2	25
33	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
34	Aeroelectric structures and turbulence in the atmospheric boundary layer. Nonlinear Processes in Geophysics, 2013, 20, 819-824.	0.6	8
35	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
36	Structuring of turbulence and its impact on basic features of Ekman boundary layers. Nonlinear Processes in Geophysics, 2013, 20, 589-604.	0.6	8

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37	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
38	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
39	The Nature, Theory, and Modeling of Atmospheric Planetary Boundary Layers. Bulletin of the American Meteorological Society, 2011, 92, 123-128.	1.7	103
40	Comments on the Numerical Simulation of Homogeneous Stably-Stratified Turbulence. Boundary-Layer Meteorology, 2010, 136, 161-164.	1.2	2
41	On the Velocity Gradient in Stably Stratified Sheared Flows. Part 2: Observations and Models. Boundary-Layer Meteorology, 2010, 135, 513-517.	1.2	6
42	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
43	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
44	The Effect of Stratification on the Aerodynamic Roughness Length. , 2009, , 59-66.		1
45	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
46	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
47	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
48	A new model for the CBL growth based on the turbulent kinetic energy equation. Environmental Fluid Mechanics, 2007, 7, 409-419.	0.7	2
49	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
50	Similarity theory and calculation of turbulent fluxes at the surface for the stably stratified atmospheric boundary layer. , 2007, , 37-49.		2
51	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
52	Phenomenology of wall-bounded Newtonian turbulence. Physical Review E, 2006, 73, 016303.	0.8	9
53	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
54	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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55	Formation of large-scale semiorganized structures in turbulent convection. Physical Review E, 2002, 66, 066305.	0.8	44
56	Calculation Of The Height Of The Stable Boundary Layer In Practical Applications. Boundary-Layer Meteorology, 2002, 105, 389-409.	1.2	148
57	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
58	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
59	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
60	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
61	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
62	Towards Revision of Conventional Flux-Profile Relationships for the Stably Stratified Atmospheric Surface Layer. , 2000, , 403-407.		1
63	Third-Order Transport and Nonlocal Turbulence Closures for Convective Boundary Layers*. Journals of the Atmospheric Sciences, 1999, 56, 3463-3477.	0.6	94
64	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
65	Surface Frictional Processes and Non-Local Heat/Mass Transfer in the Shear-Free Convective Boundary Layer. , 1998, , 83-113.		27
66	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
67	A multi-limit formulation for the equilibrium depth of a stably stratified boundary layer. Boundary-Layer Meteorology, 1996, 81, 325-351.	1.2	106
68	Scaling for Convective Boundary Layers. , 1995, , 67-79.		0
69	A generalized scaling for convective shear flows. Boundary-Layer Meteorology, 1994, 70, 51-78.	1.2	14
70	Temperature distribution and current system in a convectively mixed lake. Boundary-Layer Meteorology, 1994, 71, 219-234.	1.2	10
71	Theoretical Model of the Thermocline in a Freshwater Basin. Journal of Physical Oceanography, 1992, 22, 988-996.	0.7	10