Anastassia M Makarieva

List of Publications by Year
in descending order

52 papers	1,639 citations	331259 21 h-index	301761 39 g-index
69 all docs	69 docs citations	69 times ranked	1803 citing authors

#	Article	IF	Citations
1	Mean mass-specific metabolic rates are strikingly similar across life's major domains: Evidence for life's metabolic optimum. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16994-16999.	3.3	276
2	Where do winds come from? A new theory on how water vapor condensation influences atmospheric pressure and dynamics. Atmospheric Chemistry and Physics, 2013, 13, 1039-1056.	1.9	99
3	Energetics of the smallest: do bacteria breathe at the same rate as whales?. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 2219-2224.	1.2	96
4	Precipitation on land versus distance from the ocean: Evidence for a forest pump of atmospheric moisture. Ecological Complexity, 2009, 6, 302-307.	1.4	77
5	A Note on Metabolic Rate Dependence on Body Size in Plants and Animals. Journal of Theoretical Biology, 2003, 221, 301-307.	0.8	70
6	Revisiting forest impact on atmospheric water vapor transport and precipitation. Theoretical and Applied Climatology, 2013, 111, 79-96.	1.3	70
7	Size- and temperature-independence of minimum life-supporting metabolic rates. Functional Ecology, 2006, 20, 83-96.	1.7	62
8	Temperature-associated upper limits to body size in terrestrial poikilotherms. Oikos, 2005, 111, 425-436.	1.2	61
9	Energy budget of the biosphere and civilization: Rethinking environmental security of global renewable and non-renewable resources. Ecological Complexity, 2008, 5, 281-288.	1.4	61
10	Gigantism, temperature and metabolic rate in terrestrial poikilotherms. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 2325-2328.	1.2	57
11	Ontogenetic growth: models and theory. Ecological Modelling, 2004, 176, 15-26.	1.2	55
12	Why Does Air Passage over Forest Yield More Rain? Examining the Coupling between Rainfall, Pressure, and Atmospheric Moisture Content*. Journal of Hydrometeorology, 2014, 15, 411-426.	0.7	51
13	Revising the distributive networks models of West, Brown and Enquist (1997) and Banavar, Maritan and Rinaldo (1999): Metabolic inequity of living tissues provides clues for the observed allometric scaling rules. Journal of Theoretical Biology, 2005, 237, 291-301.	0.8	49
14	Why do population density and inverse home range scale differently with body size?. Ecological Complexity, 2005, 2, 259-271.	1.4	49
15	The Biotic Pump: Condensation, atmospheric dynamics and climate. International Journal of Water, 2010, 5, 365.	0.1	49
16	Conservation of water cycle on land via restoration of natural closed-canopy forests: implications for regional landscape planning. Ecological Research, 2006, 21, 897-906.	0.7	45
17	Body size, energy consumption and allometric scaling: a new dimension in the diversityâ€“stability debate. Ecological Complexity, 2004, 1, 139-175.	1.4	39
18	Revising the fundamentals of ecological knowledge: the biotaâ€“environment interaction. Ecological Complexity, 2004, 1, 17-36.	1.4	37

#	Article	IF	Citations
19	Biochemical universality of living matter and its metabolic implications. Functional Ecology, 2005, 19, 547-557.	1.7	35
20	ENERGY PARTITIONING BETWEEN DIFFERENT-SIZED ORGANISMS AND ECOSYSTEM STABILITY. Ecology, 2004, 85, 1811-1813.	1.5	32
21	Fuel for cyclones: The water vapor budget of a hurricane as dependent on its movement. Atmospheric Research, 2017, 193, 216-230.	1.8	30
22	A critique of some modern applications of the Carnot heat engine concept: the dissipative heat engine cannot exist. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 1893-1902.	1.0	21
23	On the dependence of speciation rates on species abundance and characteristic population size. Journal of Biosciences, 2004, 29, 119-128.	0.5	19
24	Condensation-induced kinematics and dynamics of cyclones, hurricanes and tornadoes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 4201-4205.	0.9	18
25	Forest restoration: Transformative trees. Science, 2019, 366, 316-317.	6.0	16
26	Comment on â€œEnergy Uptake and Allocation During Ontogenyâ€• Science, 2009, 325, 1206-1206.	6.0	13
27	Condensational theory of stationary tornadoes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2259-2261.	0.9	13
28	The Key Physical Parameters Governing Frictional Dissipation in a Precipitating Atmosphere. Journals of the Atmospheric Sciences, 2013, 70, 2916-2929.	0.6	13
29	Variance of protein heterozygosity in different species of mammals with respect to the number of loci studied. Heredity, 2001, 87, 41-51.	1.2	12
30	Condensation-induced dynamic gas fluxes in a mixture of condensable and non-condensable gases. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 2801-2804.	0.9	11
31	Radial profiles of velocity and pressure for condensation-induced hurricanes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 1053-1058.	0.9	11
32	Condensation of water vapor in the gravitational field. Journal of Experimental and Theoretical Physics, 2012, 115, 723-728.	0.2	11
33	Condensational power of air circulation in the presence of a horizontal temperature gradient. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 294-298.	0.9	10
34	Lifeâ€™s Energy and Information: Contrasting Evolution of Volume- versus Surface-Specific Rates of Energy Consumption. Entropy, 2020, 22, 1025.	1.1	10
35	Distributive network model of Banavar, Damuth, Maritan and Rinaldo (2002): Critique and perspective. Journal of Theoretical Biology, 2006, 239, 394-397.	0.8	8
36	The equations of motion for moist atmospheric air. Journal of Geophysical Research D: Atmospheres, 2017, 122, 7300-7307.	1.2	7

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37	The forest biotic pump of river basins. Russian Journal of Ecology, 2008, 39, 537-540.	0.3	6
38	Empirical evidence for the condensational theory of hurricanes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2396-2398.	0.9	6
39	Comments on â€œThe Tropospheric Landâ€"Sea Warming Contrast as the Driver of Tropical Sea Level Pressure Changesâ€. Journal of Climate, 2015, 28, 4293-4307.	1.2	6
40	Kinetic energy generation in heat engines and heat pumps: the relationship between surface pressure, temperature and circulation cell size. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 69, 1272752.	0.8	6
41	Re-calibrating the snake palaeothermometer. Nature, 2009, 460, E2-E3.	13.7	5
42	How Valid are the Biological and Ecological Principles Underpinning Global Change Science?. Energy and Environment, 2002, 13, 299-310.	2.7	3
43	Comments on â€œIs Condensation-Induced Atmospheric Dynamics a New Theory of the Origin of the Winds?â€. Journals of the Atmospheric Sciences, 2019, 2019, 81-85.	0.6	3
44	Comments on â€œAn Evaluation of Hurricane Superintensity in Axisymmetric Numerical Modelsâ€. Journals of the Atmospheric Sciences, 2020, 77, 3971-3975.	0.6	3
45	Governance of Societies. , 2016, , 75-115.		2
46	A strategy for the survival of humanity is on the agenda. Herald of the Russian Academy of Sciences, 2006, 76, 139-143.	0.2	1
47	Cybernetics. , 2008, , 806-812.		1
48	Natural Ecosystems and Earthâ€™s Habitability: Attempting a Cross-Disciplinary Synthesis. Strategies for Sustainability, 2022, , 143-169.	0.2	1
49	Have Ecological Human Rights Been Globally Lost? A Conflict of Ecological Spatial Requirements and Cultural Landscape Opportunities in Modern Homo sapiens. Structure and Function of Mountain Ecosystems in Japan, 2011, , 129-137.	0.1	1
50	Allometric scaling as an indicator of ecosystem state: a new approach. NATO Science for Peace and Security Series C: Environmental Security, 2008, , 107-117.	0.1	1
51	Cybernetics. , 2008, , 553-558.		0
52	Comprehending ecological and economic sustainability. Annals of the New York Academy of Sciences, 2010, 1195, E1-E18.	1.8	0