Sergey Malyshev

List of Publications by Year
in descending order

64 papers	9,073 citations	109311 35 h-index	106340 65 g-index
81 all docs	81 docs citations	81 times ranked	9644 citing authors

#	Article	IF	Citations
1	The Role of Continental Topography in the Present-Day Oceanâ€™s Mean Climate. Journal of Climate, 2022, 35, 1327-1346.	3.2	2
2	Possible Anthropogenic Enhancement of Precipitation in the Sahelâ€Sudan Savanna by Remote Agricultural Irrigation. Geophysical Research Letters, 2022, 49, .	4.0	1
3	Globally prevalent land nitrogen memory amplifies water pollution following drought years. Environmental Research Letters, 2021, 16, 014049.	5.2	8
4	Amplified Increases of Compound Hot Extremes Over Urban Land in China. Geophysical Research Letters, 2021, 48, e2020GL091252.	4.0	28
5	Global modeling of hydrogen using GFDL-AM4.1: Sensitivity of soil removal and radiative forcing. International Journal of Hydrogen Energy, 2021, 46, 13446-13460.	7.1	20
6	A novel representation of biological nitrogen fixation and competitive dynamics between nitrogen-fixing and non-fixing plants in a land model (GFDL LM4.1-BNF). Biogeosciences, 2021, 18, 4143-4183.	3.3	6
7	Simulated Global Coastal Ecosystem Responses to a Halfâ€Century Increase in River Nitrogen Loads. Geophysical Research Letters, 2021, 48, e2021GL094367.	4.0	22
8	The GFDL Global Atmospheric Chemistryâ€Climate Model AM4.1: Model Description and Simulation Characteristics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002032.	3.8	51
9	The GFDL Earth System Model Version 4.1 (GFDLâ€ESM 4.1): Overall Coupled Model Description and Simulation Characteristics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002015.	3.8	277
10	Allometric constraints and competition enable the simulation of size structure and carbon fluxes in a dynamic vegetation model of tropical forests (LM3PPAâ€TV). Global Change Biology, 2020, 26, 4478-4494.	9.5	24
11	Retrieving the global distribution of the threshold of wind erosion from satellite data and implementing it into the Geophysical Fluid Dynamics Laboratory landâ€“atmosphere model (GFDL) Tj ETQq1 1 0.784314 rgBT /Overlock	4.9	22
12	Vegetation feedbacks during drought exacerbate ozone air pollution extremes in Europe. Nature Climate Change, 2020, 10, 444-451.	18.8	96
13	SPEAR: The Next Generation GFDL Modeling System for Seasonal to Multidecadal Prediction and Projection. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001895.	3.8	94
14	Soil carbon sequestration simulated in CMIP6-LUMIP models: implications for climatic mitigation. Environmental Research Letters, 2020, 15, 124061.	5.2	35
15	Sensitivity of Ozone Dry Deposition to Ecosystemâ€Atmosphere Interactions: A Critical Appraisal of Observations and Simulations. Global Biogeochemical Cycles, 2019, 33, 1264-1288.	4.9	33
16	Structure and Performance of GFDL's CM4.0 Climate Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 3691-3727.	3.8	242
17	Prominence of the tropics in the recent rise of global nitrogen pollution. Nature Communications, 2019, 10, 1437.	12.8	32
18	Diverse Mycorrhizal Associations Enhance Terrestrial C Storage in a Global Model. Global Biogeochemical Cycles, 2019, 33, 501-523.	4.9	80

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19	Urban heat island: Aerodynamics or imperviousness?. Science Advances, 2019, 5, eaau4299.	10.3	179
20	The Impacts of the Dust Radiative Effect on Vegetation Growth in the Sahel. Global Biogeochemical Cycles, 2019, 33, 1582-1593.	4.9	16
21	The GFDL Global Atmosphere and Land Model AM4.0/LM4.0: 2. Model Description, Sensitivity Studies, and Tuning Strategies. Journal of Advances in Modeling Earth Systems, 2018, 10, 735-769.	3.8	185
22	The GFDL Global Atmosphere and Land Model AM4.0/LM4.0: 1. Simulation Characteristics With Prescribed SSTs. Journal of Advances in Modeling Earth Systems, 2018, 10, 691-734.	3.8	155
23	Potential for western US seasonal snowpack prediction. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1180-1185.	7.1	30
24	Trends and Variability of Global Fire Emissions Due To Historical Anthropogenic Activities. Global Biogeochemical Cycles, 2018, 32, 122-142.	4.9	37
25	Representing sub-grid scale variations in nitrogen deposition associated with land use in a global Earth system model: implications for present and future nitrogen deposition fluxes over North America. Atmospheric Chemistry and Physics, 2018, 18, 17963-17978.	4.9	25
26	Control of Nitrogen Exports From River Basins to the Coastal Ocean: Evaluation of Basin Management Strategies for Reducing Coastal Hypoxia. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 3111-3123.	3.0	5
27	A fire model with distinct crop, pasture, and non-agricultural burning: use of new data and a model-fitting algorithm for FINAL.1. Geoscientific Model Development, 2018, 11, 815-842.	3.6	25
28	Harnessing big data to rethink land heterogeneity in Earth system models. Hydrology and Earth System Sciences, 2018, 22, 3311-3330.	4.9	39
29	Interannual variability in ozone removal by a temperate deciduous forest. Geophysical Research Letters, 2017, 44, 542-552.	4.0	56
30	The impact of anthropogenic land use and land cover change on regional climate extremes. Nature Communications, 2017, 8, 989.	12.8	207
31	Variability of fire emissions on interannual to multi-decadal timescales in two Earth System models. Environmental Research Letters, 2016, 11, 125008.	5.2	7
32	Landâ€“atmosphere feedbacks amplify aridity increase over land under global warming. Nature Climate Change, 2016, 6, 869-874.	18.8	300
33	Climateâ€vegetation interaction and amplification of Australian dust variability. Geophysical Research Letters, 2016, 43, 11,823.	4.0	39
34	The importance of climate change and nitrogen use efficiency for future nitrous oxide emissions from agriculture. Environmental Research Letters, 2016, 11, 094003.	5.2	51
35	Exploring historical and future urban climate in the Earth System Modeling framework: 1. Model development and evaluation. Journal of Advances in Modeling Earth Systems, 2016, 8, 917-935.	3.8	32
36	Exploring historical and future urban climate in the Earth System Modeling framework: 2. Impact of urban land use over the Continental United States. Journal of Advances in Modeling Earth Systems, 2016, 8, 936-953.	3.8	22

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37	Climate variability and extremes, interacting with nitrogen storage, amplify eutrophication risk. Geophysical Research Letters, 2016, 43, 7520-7528.	4.0	32
38	Scaling from individual trees to forests in an Earth system modeling framework using a mathematically tractable model of height-structured competition. Biogeosciences, 2015, 12, 2655-2694.	3.3	108
39	Contrasting Local versus Regional Effects of Land-Use-Change-Induced Heterogeneity on Historical Climate: Analysis with the GFDL Earth System Model. Journal of Climate, 2015, 28, 5448-5469.	3.2	60
40	Interannual Coupling between Summertime Surface Temperature and Precipitation over Land: Processes and Implications for Climate Change*. Journal of Climate, 2015, 28, 1308-1328.	3.2	135
41	Capturing interactions between nitrogen and hydrological cycles under historical climate and land use: Susquehanna watershed analysis with the GFDL land model LM3-TAN. Biogeosciences, 2014, 11, 5809-5826.	3.3	14
42	Impact of Soil Moistureâ€“Atmosphere Interactions on Surface Temperature Distribution. Journal of Climate, 2014, 27, 7976-7993.	3.2	129
43	Snowfall less sensitive to warming in Karakoram than in Himalayas due to a unique seasonal cycle. Nature Geoscience, 2014, 7, 834-840.	12.9	246
44	Confronting terrestrial biosphere models with forest inventory data. , 2014, 24, 699-715.		18
45	Influence of the Atlantic Meridional Overturning Circulation on the monsoon rainfall and carbon balance of the American tropics. Geophysical Research Letters, 2014, 41, 146-151.	4.0	34
46	Impact of soil moistureâ€climate feedbacks on CMIP5 projections: First results from the GLACEâ€CMIP5 experiment. Geophysical Research Letters, 2013, 40, 5212-5217.	4.0	314
47	Historical warming reduced due to enhanced land carbon uptake. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16730-16735.	7.1	88
48	Predicting changes in temperate forest budburst using continentalâ€scale observations and models. Geophysical Research Letters, 2013, 40, 359-364.	4.0	57
49	Uncertainties in terrestrial carbon budgets related to spring phenology. Journal of Geophysical Research, 2012, 117, .	3.3	83
50	The Second Phase of the Global Landâ€“Atmosphere Coupling Experiment: Soil Moisture Contributions to Subseasonal Forecast Skill. Journal of Hydrometeorology, 2011, 12, 805-822.	1.9	296
51	Time Scales of Terrestrial Carbon Response Related to Land-Use Application: Implications for Initializing an Earth System Model. Earth Interactions, 2011, 15, 1-16.	1.5	9
52	Contribution of land surface initialization to subseasonal forecast skill: First results from a multiâ€model experiment. Geophysical Research Letters, 2010, 37, .	4.0	330
53	Carbon cycling under 300 years of land use change: Importance of the secondary vegetation sink. Global Biogeochemical Cycles, 2009, 23, .	4.9	338
54	Is a shutdown of the thermohaline circulation irreversible?. Journal of Geophysical Research, 2006, 111, .	3.3	26

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55	GLACE: The Global Landâ€“Atmosphere Coupling Experiment. Part I: Overview. Journal of Hydrometeorology, 2006, 7, 590-610.	1.9	616
56	Diagnosis of the summertime warm and dry bias over the U.S. Southern Great Plains in the GFDL climate model using a weather forecasting approach. Geophysical Research Letters, 2006, 33, n/a-n/a.	4.0	112
57	GLACE: The Global Landâ€“Atmosphere Coupling Experiment. Part II: Analysis. Journal of Hydrometeorology, 2006, 7, 611-625.	1.9	337
58	The underpinnings of land-use history: three centuries of global gridded land-use transitions, wood-harvest activity, and resulting secondary lands. Global Change Biology, 2006, 12, 1208-1229.	9.5	449
59	The influence of large-scale wind power on global climate. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 16115-16120.	7.1	255
60	Regions of Strong Coupling Between Soil Moisture and Precipitation. Science, 2004, 305, 1138-1140.	12.6	2,337
61	Climate/chemistry effects of the Pinatubo volcanic eruption simulated by the UIUC stratosphere/troposphere GCM with interactive photochemistry. Journal of Geophysical Research, 2002, 107, ACL 12-1-ACL 12-14.	3.3	50
62	Changes in Near-Surface Temperature and Sea Level for the Post-SRES CO2-Stabilization Scenarios. Integrated Assessment: an International Journal, 2001, 2, 95-110.	0.8	21
63	Geographical Distributions of Temperature Change for Scenarios of Greenhouse Gas and Sulfur Dioxide Emissions. Technological Forecasting and Social Change, 2000, 65, 167-193.	11.6	49
64	Geographical scenarios of greenhouse-gas and anthropogenic-sulfate-aerosol induced climate changes. Journal of Aerosol Science, 1998, 29, S121-S122.	3.8	13