

# The DOE E3SM Coupled Model Version 1: Overview and

Journal of Advances in Modeling Earth Systems

11, 2089-2129

DOI: [10.1029/2018ms001603](https://doi.org/10.1029/2018ms001603)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Ocean Barrier Layers in the Energy Exascale Earth System Model. <i>Geophysical Research Letters</i> , 2019, 46, 8234-8243.	1.5	2
2	The Summertime Precipitation Bias in E3SM Atmosphere Model Version 1 over the Central United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 8935-8952.	1.2	14
3	Improved Diurnal Cycle of Precipitation in E3SM With a Revised Convective Triggering Function. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2290-2310.	1.3	86
4	An Evaluation of the Ocean and Sea Ice Climate of E3SM Using MPAS and Interannual COREâ€” Forcing. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 1438-1458.	1.3	73
5	High Climate Sensitivity in the Community Earth System Model Version 2 (CESM2). <i>Geophysical Research Letters</i> , 2019, 46, 8329-8337.	1.5	249
6	Regionally refined test bed in E3SM atmosphere model version 1 (EAMv1) and applications for high-resolution modeling. <i>Geoscientific Model Development</i> , 2019, 12, 2679-2706.	1.3	49
7	Improving Representation of Deforestation Effects on Evapotranspiration in the E3SM Land Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2412-2427.	1.3	28
8	Comparison of piecewise linear change point detection with traditional analytical methods for ocean and climate data. <i>Environmental Earth Sciences</i> , 2019, 78, 1.	1.3	6
9	Mie Scattering Captures Observed Optical Properties of Ambient Biomass Burning Plumes Assuming Uniform Black, Brown, and Organic Carbon Mixtures. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 11406-11427.	1.2	23
10	The DOE E3SM Coupled Model Version 1: Description and Results at High Resolution. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 4095-4146.	1.3	112
11	Flood Inundation Generation Mechanisms and Their Changes in 1953â€”2004 in Global Major River Basins. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 11672-11692.	1.2	18
12	Understanding Monsoonal Water Cycle Changes in a Warmer Climate in E3SMv1 Using a Normalized Cross Moist Stability Framework. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 10826-10843.	1.2	6
13	Improved methodologies for Earth system modelling of atmospheric soluble iron and observation comparisons using the Mechanism of Intermediate complexity for Modelling Iron (MIMI v1.0). <i>Geoscientific Model Development</i> , 2019, 12, 3835-3862.	1.3	39
14	Identification of key parameters controlling demographically structured vegetation dynamics in a land surface model: CLM4.5(FATES). <i>Geoscientific Model Development</i> , 2019, 12, 4133-4164.	1.3	32
15	E3SMv0â€”HiLAT: A Modified Climate System Model Targeted for the Study of Highâ€”Latitude Processes. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2814-2843.	1.3	9
16	Black Carbon Increases Frequency of Extreme ENSO Events. <i>Journal of Climate</i> , 2019, 32, 8323-8333.	1.2	11
17	Factors driving the seasonal and hourly variability of sea-spray aerosol number in the North Atlantic. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 20309-20314.	3.3	43
18	Evaluation of Clouds in Version 1 of the E3SM Atmosphere Model With Satellite Simulators. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 1253-1268.	1.3	55

#	ARTICLE	IF	CITATIONS
19	An Objective and Efficient Method for Assessing the Impact of Reduced Precision Calculations On Solution Correctness. Journal of Advances in Modeling Earth Systems, 2019, 11, 3131-3147.	1.3	0
20	Evaluating Scientific Workflow Engines for Data and Compute Intensive Discoveries. , 2019, , .		1
21	Evaluating Carbon Extremes in a Coupled Climate-Carbon Cycle Simulation. , 2019, , .		2
22	The Southern Annular Mode and Southern Ocean Surface Westerly Winds in E3SM. Earth and Space Science, 2019, 6, 2624-2643.	1.1	17
23	A round Earth for climate models. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19330-19335.	3.3	4
24	A Co-Design Study Of Fusion Whole Device Modeling Using Code Coupling. , 2019, , .		2
25	Quantifying stochastic uncertainty in detection time of human-caused climate signals. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19821-19827.	3.3	32
26	Improved Simulation of the QBO in E3SMv1. Journal of Advances in Modeling Earth Systems, 2019, 11, 3403-3418.	1.3	15
27	Forcings, Feedbacks, and Climate Sensitivity in HadGEM3â€¦GC3.1 and UKESM1. Journal of Advances in Modeling Earth Systems, 2019, 11, 4377-4394.	1.3	74
28	Impact of Nudging Strategy on the Climate Representativeness and Hindcast Skill of Constrained EAMv1 Simulations. Journal of Advances in Modeling Earth Systems, 2019, 11, 3911-3933.	1.3	37
29	Constraining the Emergent Constraints. Advances in Atmospheric Sciences, 2020, 37, 16-17.	1.9	2
30	A substantial role of soil erosion in the land carbon sink and its future changes. Global Change Biology, 2020, 26, 2642-2655.	4.2	30
31	Aerosols in the E3SM Version 1: New Developments and Their Impacts on Radiative Forcing. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001851.	1.3	68
32	Causes of Higher Climate Sensitivity in CMIP6 Models. Geophysical Research Letters, 2020, 47, e2019GL085782.	1.5	759
33	A Fortran-Keras Deep Learning Bridge for Scientific Computing. Scientific Programming, 2020, 2020, 1-13.	0.5	41
34	Quantifying Progress Across Different CMIP Phases With the ESMValTool. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032321.	1.2	50
35	Resolving and Parameterising the Ocean Mesoscale in Earth System Models. Current Climate Change Reports, 2020, 6, 137-152.	2.8	62
36	Characterizing Tropical Cyclones in the Energy Exascale Earth System Model Version 1. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002024.	1.3	20

#	ARTICLE	IF	CITATIONS
37	Simulations for CMIP6 With the AWI Climate Model AWIâ€‘CMâ€‘1â€‘1. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002009.	1.3	72
38	Climate Sensitivity and Feedback of a New Coupled Model (K-ACE) to Idealized CO2 Forcing. Atmosphere, 2020, 11, 1218.	1.0	2
39	U.K. Community Earth System Modeling for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002004.	1.3	18
40	Description and Climate Simulation Performance of CASâ€‘ESM Version 2. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002210.	1.3	59
41	Warm Arctic, Cold Siberia Pattern: Role of Full Arctic Amplification Versus Sea Ice Loss Alone. Geophysical Research Letters, 2020, 47, e2020GL088583.	1.5	49
42	Comparison of Equilibrium Climate Sensitivity Estimates From Slab Ocean, 150â€‘Year, and Longer Simulations. Geophysical Research Letters, 2020, 47, e2020GL088852.	1.5	16
43	Rapid Net Carbon Loss From a Wholeâ€‘Ecosystem Warmed Peatland. AGU Advances, 2020, 1, e2020AV000163.	2.3	69
44	Historical (1850â€‘2014) Aerosol Evolution and Role on Climate Forcing Using the GISS ModelE2.1 Contribution to CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001978.	1.3	69
45	The DOE E3SM v1.1 Biogeochemistry Configuration: Description and Simulated Ecosystemâ€‘Climate Responses to Historical Changes in Forcing. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001766.	1.3	65
46	GISSâ€‘E2.1: Configurations and Climatology. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002025.	1.3	234
47	Historical total ozone radiative forcing derived from CMIP6 simulations. Npj Climate and Atmospheric Science, 2020, 3, .	2.6	44
48	Toward Understanding the Simulated Phase Partitioning of Arctic Singleâ€‘Layer Mixedâ€‘Phase Clouds in E3SM. Earth and Space Science, 2020, 7, e2020EA001125.	1.1	14
49	Performance and Accuracy Implications of Parallel Split Physicsâ€‘Dynamics Coupling in the Energy Exascale Earth System Atmosphere Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002080.	1.3	8
50	Stability Analysis of Interface Conditions for Oceanâ€‘Atmosphere Coupling. Journal of Scientific Computing, 2020, 84, 1.	1.1	4
51	Nascent exascale supercomputers offer promise, present challenges. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 22623-22625.	3.3	16
52	Investigating controls on sea ice algal production using E3SMv1.1-BGC. Annals of Glaciology, 2020, 61, 51-72.	2.8	16
53	An Introduction to the E3SM Special Collection: Goals, Science Drivers, Development, and Analysis. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001821.	1.3	43
54	Global Irrigation Characteristics and Effects Simulated by Fully Coupled Land Surface, River, and Water Management Models in E3SM. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002069.	1.3	16

#	ARTICLE	IF	CITATIONS
55	Historical Simulations With HadGEM3â€GC3.1 for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001995.	1.3	84
56	Numerically Relevant Timescales in the MG2 Microphysics Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001972.	1.3	6
57	High water use in desert plants exposed to extreme heat. Ecology Letters, 2020, 23, 1189-1200.	3.0	59
58	Past warming trend constrains future warming in CMIP6 models. Science Advances, 2020, 6, eaaz9549.	4.7	327
59	Modeling the Carbon Cost of Plant Nitrogen and Phosphorus Uptake Across Temperate and Tropical Forests. Frontiers in Forests and Global Change, 2020, 3, .	1.0	27
60	Tuning the MPIâ€ESM1.2 Global Climate Model to Improve the Match With Instrumental Record Warming by Lowering Its Climate Sensitivity. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002037.	1.3	29
61	Benchmarking and parameter sensitivity of physiological and vegetation dynamics using the Functionally Assembled Terrestrial Ecosystem Simulator (FATES) at Barro Colorado Island, Panama. Biogeosciences, 2020, 17, 3017-3044.	1.3	82
62	The Role of Climate Sensitivity in Upperâ€Tail Sea Level Rise Projections. Geophysical Research Letters, 2020, 47, e2019GL085792.	1.5	6
63	Assessing Impacts of Plant Stoichiometric Traits on Terrestrial Ecosystem Carbon Accumulation Using the E3SM Land Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001841.	1.3	14
64	Wintertime Arctic Oscillation and North Atlantic Oscillation and their impacts on the Northern Hemisphere climate in E3SM. Climate Dynamics, 2020, 55, 1105-1124.	1.7	5
65	Community Integrated Earth System Model (CIesm): Description and Evaluation. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002036.	1.3	44
66	Evaluation of an Improved Convective Triggering Function: Observational Evidence and SCM Tests. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031651.	1.2	8
67	Context for interpreting equilibrium climate sensitivity and transient climate response from the CMIP6 Earth system models. Science Advances, 2020, 6, eaba1981.	4.7	321
68	Exploring Topographyâ€Based Methods for Downscaling Subgrid Precipitation for Use in Earth System Models. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031456.	1.2	18
69	Energy budget constraints on historical radiative forcing. Nature Climate Change, 2020, 10, 313-316.	8.1	12
70	Methane and nitrous oxide porewater concentrations and surface fluxes of a regulated river. Science of the Total Environment, 2020, 715, 136920.	3.9	20
71	MPASâ€Ocean Simulation Quality for Variableâ€Resolution North American Coastal Meshes. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001848.	1.3	17
72	Initial Results From the Superâ€Parameterized E3SM. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001863.	1.3	28

#	ARTICLE	IF	CITATIONS
73	Assessment of Sea Ice Extent in CMIP6 With Comparison to Observations and CMIP5. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087965.	1.5	96
74	Antarctic Sea Ice Area in CMIP6. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086729.	1.5	129
75	An Energy Consistent Discretization of the Nonhydrostatic Equations in Primitive Variables. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001783.	1.3	28
76	Triose phosphate utilization limitation: an unnecessary complexity in terrestrial biosphere model representation of photosynthesis. <i>New Phytologist</i> , 2021, 230, 17-22.	3.5	11
77	CAS-ESM2.0 Model Datasets for the CMIP6 Ocean Model Intercomparison Project Phase 1 (OMIP1). <i>Advances in Atmospheric Sciences</i> , 2021, 38, 307-316.	1.9	20
78	Evaluating Diurnal and Semi-Diurnal Cycle of Precipitation in CMIP6 Models Using Satellite- and Ground-Based Observations. <i>Journal of Climate</i> , 2021, , 1-56.	1.2	19
79	A multi-year short-range hindcast experiment with CESM1 for evaluating climate model moist processes from diurnal to interannual timescales. <i>Geoscientific Model Development</i> , 2021, 14, 73-90.	1.3	9
80	Extending a land-surface model with <i>Sphagnum</i> moss to simulate responses of a northern temperate bog to whole ecosystem warming and elevated CO <sub>2</sub> . <i>Biogeosciences</i> , 2021, 18, 467-486.	1.3	17
81	Coupling of the CAS-LSM Land-Surface Model With the CAS-FOALS-CM3 Climate System Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002171.	1.3	3
82	Antarctic Water Masses and Ice Shelves: Visualizing the Physics. <i>IEEE Computer Graphics and Applications</i> , 2021, 41, 35-41.	1.0	1
83	The development of rainfall retrievals from radar at Darwin. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 53-69.	1.2	5
84	Effects of marine organic aerosols as sources of immersion-mode ice-nucleating particles on high-latitude mixed-phase clouds. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 2305-2327.	1.9	34
85	Land-Atmosphere Coupling at the U.S. Southern Great Plains: A Comparison on Local Convective Regimes between ARM Observations, Reanalysis, and Climate Model Simulations. <i>Journal of Hydrometeorology</i> , 2021, 22, 463-481.	0.7	3
86	Resilience and fault tolerance in high-performance computing for numerical weather and climate prediction. <i>International Journal of High Performance Computing Applications</i> , 2021, 35, 285-311.	2.4	7
87	Humans dominated biomass burning variations in Equatorial Asia over the past 200 years: Evidence from a lake sediment charcoal record. <i>Quaternary Science Reviews</i> , 2021, 253, 106778.	1.4	5
88	The Southern Annular Mode in 6th Coupled Model Intercomparison Project Models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034161.	1.2	10
89	A Lagrangian Perspective on Tropical Anvil Cloud Lifecycle in Present and Future Climate. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033487.	1.2	14
90	Evaluation of the interactive stratospheric ozone (O3v2) module in the E3SM version 1 Earth system model. <i>Geoscientific Model Development</i> , 2021, 14, 1219-1236.	1.3	9

#	ARTICLE	IF	CITATIONS
91	Effects of coupling a stochastic convective parameterization with the Zhang&McFarlane scheme on precipitation simulation in the DOE E3SMv1.0 atmosphere model. <i>Geoscientific Model Development</i> , 2021, 14, 1575-1593.	1.3	13
92	Evaluating stratospheric ozone and water vapour changes in CMIP6 models from 1850 to 2100. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 5015-5061.	1.9	54
93	A comparison of Gaussian processes and neural networks for computer model emulation and calibration. <i>Statistical Analysis and Data Mining</i> , 2021, 14, 606-623.	1.4	7
94	An Overview of Atmospheric Features Over the Western North Atlantic Ocean and North American East Coast&Part 2: Circulation, Boundary Layer, and Clouds. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033423.	1.2	26
95	Enhanced Climate Response to Ozone Depletion From Ozone&Circulation Coupling. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034286.	1.2	5
96	Climate model projections from the Scenario Model Intercomparison Project&(ScenarioMIP) of CMIP6. <i>Earth System Dynamics</i> , 2021, 12, 253-293.	2.7	236
98	Warm-season net CO2 uptake outweighs cold-season emissions over Alaskan North Slope tundra under current and RCP8.5 climate. <i>Environmental Research Letters</i> , 2021, 16, 055012.	2.2	6
99	A Scalable Semi&Implicit Barotropic Mode Solver for the MPAS&Ocean. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002238.	1.3	2
100	Towards multiscale modeling of ocean surface turbulent mixing using coupled MPAS-Ocean v6.3 and PALM v5.0. <i>Geoscientific Model Development</i> , 2021, 14, 2011-2028.	1.3	3
101	Multi-model ensemble mean of global climate models fails to reproduce early twentieth century Arctic warming. <i>Polar Science</i> , 2021, 30, 100677.	0.5	9
102	A Parameterization of Turbulent Dissipation and Pressure Damping Time Scales in Stably Stratified Inversions, and its Effects on Low Clouds in Global Simulations. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002278.	1.3	7
103	Integrating Arctic Plant Functional Types in a Land Surface Model Using Above&and Belowground Field Observations. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002396.	1.3	27
104	Unstructured global to coastal wave modeling for the Energy Exascale Earth System Model using WAVEWATCH III version 6.07. <i>Geoscientific Model Development</i> , 2021, 14, 2917-2938.	1.3	11
105	Are 100 Ensemble Members Enough to Capture the Remote Atmospheric Response to +2&Celsius Arctic Sea Ice Loss?. <i>Journal of Climate</i> , 2021, 34, 3751-3769.	1.2	37
106	Opposite Responses of the Dry and Moist Eddy Heat Transport Into the Arctic in the PAMIP Experiments. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL089990.	1.5	11
107	Increased extreme rains intensify erosional nitrogen and phosphorus fluxes to the northern Gulf of Mexico in recent decades. <i>Environmental Research Letters</i> , 2021, 16, 054080.	2.2	12
108	Improving Convection Trigger Functions in Deep Convective Parameterization Schemes Using Machine Learning. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002365.	1.3	16
109	Improvements in Cloud and Water Vapor Simulations Over the Tropical Oceans in CMIP6 Compared to CMIP5. <i>Earth and Space Science</i> , 2021, 8, e2020EA001520.	1.1	17



#	ARTICLE	IF	CITATIONS
110	Evaluation of the Causes of Wet-to-Dry Biases Over Amazonia in CAM5. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033859.	1.2	6
111	Disentangling the Effects of Vapor Pressure Deficit and Soil Water Availability on Canopy Conductance in a Seasonal Tropical Forest During the 2015 El Niño Drought. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035004.	1.2	17
112	Ocean Surface Flux Algorithm Effects on Earth System Model Energy and Water Cycles. <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	5
113	Development and evaluation of CO <sub>2</sub> transport in MPAS-A v6.3. <i>Geoscientific Model Development</i> , 2021, 14, 3037-3066.	1.3	3
114	Improved Convective Ice Microphysics Parameterization in the NCAR CAM Model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034157.	1.2	11
115	Cloud Process Coupling and Time Integration in the E3SM Atmosphere Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002359.	1.3	6
116	Improved estimates of preindustrial biomass burning reduce the magnitude of aerosol climate forcing in the Southern Hemisphere. <i>Science Advances</i> , 2021, 7, .	4.7	22
117	Two-Moment Bulk Cloud Microphysics With Prognostic Precipitation in GFDL's Atmosphere Model AM4.0: Configuration and Performance. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002453.	1.3	10
118	The influence of fire aerosols on surface climate and gross primary production in the Energy Exascale Earth System Model (E3SM). <i>Journal of Climate</i> , 2021, , 1-60.	1.2	3
119	Effects of Organized Convection Parameterization on the MJO and Precipitation in E3SMv1. Part I: Mesoscale Heating. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002401.	1.3	14
120	Separating Physics and Dynamics Grids for Improved Computational Efficiency in Spectral Element Earth System Models. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002419.	1.3	19
121	The Energy Exascale Earth System Model Simulations With High Vertical Resolution in the Lower Troposphere. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002239.	1.3	10
122	The Implementation of Framework for Improvement by Vertical Enhancement Into Energy Exascale Earth System Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002240.	1.3	8
123	Considering coasts: Adapting terrestrial models to characterize coastal wetland ecosystems. <i>Ecological Modelling</i> , 2021, 450, 109561.	1.2	7
124	On the estimation of boundary layer heights: a machine learning approach. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 4403-4424.	1.2	26
125	Ensuring statistical reproducibility of ocean model simulations in the age of hybrid computing. , 2021, , .		2
126	Subtropical Eastern North Pacific SST Bias in Earth System Models. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2021JC017359.	1.0	4
127	Intensified modulation of winter aerosol pollution in China by El Niño with short duration. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 10745-10761.	1.9	14



#	ARTICLE	IF	CITATIONS
128	Impact of Initialized Land Surface Temperature and Snowpack on Subseasonal to Seasonal Prediction Project, Phase I (LS4P-I): organization and experimental design. <i>Geoscientific Model Development</i> , 2021, 14, 4465-4494.	1.3	31
129	Estimating global aerodynamic parameters in 1982–2017 using remote-sensing data and a turbulent transfer model. <i>Remote Sensing of Environment</i> , 2021, 260, 112428.	4.6	18
131	Performance of the Taiwan Earth System Model in Simulating Climate Variability Compared With Observations and CMIP6 Model Simulations. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002353.	1.3	31
132	Energy Budget Constraints on the Time History of Aerosol Forcing and Climate Sensitivity. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033622.	1.2	25
133	The potential for structural errors in emergent constraints. <i>Earth System Dynamics</i> , 2021, 12, 899-918.	2.7	19
134	An Image-Based Framework for Ocean Feature Detection and Analysis. <i>Journal of Geovisualization and Spatial Analysis</i> , 2021, 5, 1.	2.1	5
135	Origins of a Relatively Tight Lower Bound on Anthropogenic Aerosol Radiative Forcing from Bayesian Analysis of Historical Observations. <i>Journal of Climate</i> , 2021, 34, 8777-8792.	1.2	3
136	Dissecting Anvil Cloud Response to Sea Surface Warming. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL094049.	1.5	6
137	Cloud Feedbacks from CanESM2 to CanESM5.0 and their influence on climate sensitivity. <i>Geoscientific Model Development</i> , 2021, 14, 5355-5372.	1.3	10
138	Evaluating the performance of CMIP6 Earth system models in simulating global vegetation structure and distribution. <i>Advances in Climate Change Research</i> , 2021, 12, 584-595.	2.1	31
139	ENSO Dynamics in the E3SM-1-0, CESM2, and GFDL-CM4 Climate Models. <i>Journal of Climate</i> , 2021, , 1-59.	1.2	10
140	Increasing the spatial and temporal impact of ecological research: A roadmap for integrating a novel terrestrial process into an Earth system model. <i>Global Change Biology</i> , 2022, 28, 665-684.	4.2	27
141	Attribution of Snowpack Errors to Simulated Temperature and Precipitation in E3SMv1 Over the Contiguous United States. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2021MS002640.	1.3	3
143	Snow Reconciles Observed and Simulated Phase Partitioning and Increases Cloud Feedback. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL094876.	1.5	10
144	The Influence of Ocean Topography on the Upwelling of Carbon in the Southern Ocean. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL095088.	1.5	8
145	Mass-conserving implicit–explicit methods for coupled compressible Navier–Stokes equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 384, 113988.	3.4	1
146	Estimating uncertainty: A Bayesian approach to modelling photosynthesis in <i>C3</i> leaves. <i>Plant, Cell and Environment</i> , 2021, 44, 1436-1450.	2.8	6
148	Sensitivity of Historical Climate Simulations to Uncertain Aerosol Forcing. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085806.	1.5	28

#	ARTICLE	IF	CITATIONS
149	CMIP6 Models Predict Significant 21st Century Decline of the Atlantic Meridional Overturning Circulation. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086075.	1.5	161
150	A Performance-Portable Nonhydrostatic Atmospheric Dycore for the Energy Exascale Earth System Model Running at Cloud-Resolving Resolutions. , 2020, , .		9
151	Impacts of Ice-Shelf Melting on Water-Mass Transformation in the Southern Ocean from E3SM Simulations. <i>Journal of Climate</i> , 2020, 33, 5787-5807.	1.2	20
152	Representation of Modes of Variability in Six U.S. Climate Models. <i>Journal of Climate</i> , 2020, 33, 7591-7617.	1.2	21
153	Representation of Southern Ocean Properties across Coupled Model Intercomparison Project Generations: CMIP3 to CMIP6. <i>Journal of Climate</i> , 2020, 33, 6555-6581.	1.2	59
154	Intermodel Spread in the Pattern Effect and Its Contribution to Climate Sensitivity in CMIP5 and CMIP6 Models. <i>Journal of Climate</i> , 2020, 33, 7755-7775.	1.2	77
155	Role of AMOC in Transient Climate Response to Greenhouse Gas Forcing in Two Coupled Models. <i>Journal of Climate</i> , 2020, 33, 5845-5859.	1.2	19
156	Plant Physiology Increases the Magnitude and Spread of the Transient Climate Response to CO <sub>2</sub> in CMIP6 Earth System Models. <i>Journal of Climate</i> , 2020, 33, 8561-8578.	1.2	20
157	Projected Changes of Precipitation Characteristics Depend on Downscaling Method and Training Data: MACA versus LOCA Using the U.S. Northeast as an Example. <i>Journal of Hydrometeorology</i> , 2020, 21, 2739-2758.	0.7	19
158	Assessment of Precipitating Marine Stratocumulus Clouds in the E3SMv1 Atmosphere Model: A Case Study from the ARM MAGIC Field Campaign. <i>Monthly Weather Review</i> , 2020, 148, 3341-3359.	0.5	6
159	Understanding processes that control dust spatial distributions with global climate models and satellite observations. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 13835-13855.	1.9	47
160	Sensitivity of the Southern Hemisphere circumpolar jet response to Antarctic ozone depletion: prescribed versus interactive chemistry. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 14043-14061.	1.9	10
161	On the climate sensitivity and historical warming evolution in recent coupled model ensembles. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 7829-7842.	1.9	87
162	Effective radiative forcing and adjustments in CMIP6 models. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 9591-9618.	1.9	149
163	Stripping back the modern to reveal the Cenomanian–Turonian climate and temperature gradient underneath. <i>Climate of the Past</i> , 2020, 16, 953-971.	1.3	19
164	Emergent constraints on equilibrium climate sensitivity in CMIP5: do they hold for CMIP6?. <i>Earth System Dynamics</i> , 2020, 11, 1233-1258.	2.7	63
165	Reduced global warming from CMIP6 projections when weighting models by performance and independence. <i>Earth System Dynamics</i> , 2020, 11, 995-1012.	2.7	135
166	Evaluating simulated climate patterns from the CMIP archives using satellite and reanalysis datasets using the Climate Model Assessment Tool (CMATv1). <i>Geoscientific Model Development</i> , 2020, 13, 3627-3642.	1.3	35

#	ARTICLE	IF	CITATIONS
167	The E3SM version 1 single-column model. <i>Geoscientific Model Development</i> , 2020, 13, 4443-4458.	1.3	11
168	Early Evaluation of Fugaku A64FX Architecture Using Climate Workloads. , 2021, , .		2
169	Impact of a New Cloud Microphysics Parameterization on the Simulations of Mesoscale Convective Systems in E3SM. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, .	1.3	10
170	Reducing model uncertainty of climate change impacts on high latitude carbon assimilation. <i>Global Change Biology</i> , 2022, 28, 1222-1247.	4.2	6
171	A parameterization of sub-grid topographical effects on solar radiation in the E3SM Land Model (version 1.0): implementation and evaluation over the Tibetan Plateau. <i>Geoscientific Model Development</i> , 2021, 14, 6273-6289.	1.3	36
172	Comparing numerical accuracy and stability for different horizontal discretizations in MPAS-Ocean. <i>Ocean Modelling</i> , 2021, 168, 101908.	1.0	1
173	Warming and elevated CO <sub>2</sub> promote rapid incorporation and degradation of plant-derived organic matter in an ombrotrophic peatland. <i>Global Change Biology</i> , 2022, 28, 883-898.	4.2	15
174	Model evaluation and intercomparison of marine warm low cloud fractions with neural network ensembles. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2021MS002625.	1.3	1
175	Testing the CMIP6 GCM Simulations versus Surface Temperature Records from 1980–1990 to 2011–2021: High ECS Is Not Supported. <i>Climate</i> , 2021, 9, 161.	1.2	18
176	Representations of Precipitation Diurnal Cycle in the Amazon as Simulated by Observationally Constrained Cloud-System Resolving and Global Climate Models. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2021MS002586.	1.3	7
177	Convection-Permitting Simulations With the E3SM Global Atmosphere Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2021MS002544.	1.3	23
178	Implementation and evaluation of a double-plume convective parameterization in NCAR CAM5. <i>Journal of Climate</i> , 2021, , 1-51.	1.2	3
181	Local time stepping for the shallow water equations in MPAS. <i>Journal of Computational Physics</i> , 2022, 449, 110818.	1.9	4
182	A mass- and energy-conserving framework for using machine learning to speed computations: a photochemistry example. <i>Geoscientific Model Development</i> , 2020, 13, 4435-4442.	1.3	8
183	Quantifying CanESM5 and EAMv1 sensitivities to Mt. Pinatubo volcanic forcing for the CMIP6 historical experiment. <i>Geoscientific Model Development</i> , 2020, 13, 4831-4843.	1.3	9
184	Precipitation in Earth system models: advances and limitations. , 2022, , 637-659.		1
185	Decadal change of extreme consecutive dry days in spring over the middle and lower reaches of the Yangtze River around the early 2000s: The synergistic effect of mega-El Niño/Southern Oscillation, Atlantic Multidecadal Oscillation, and Arctic sea ice. <i>Atmospheric Research</i> , 2022, 266, 105936.	1.8	11
186	In Situ Climate Modeling for Analyzing Extreme Weather Events. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
187	In-Situ Spatial Inference on Climate Simulations with Sparse Gaussian Processes. , 2021, , .		1
188	Improved ELMv1-ECA simulations of zero-curtain periods and cold-season CH <sub>4</sub> and CO <sub>2</sub> emissions at Alaskan Arctic tundra sites. Cryosphere, 2021, 15, 5281-5307.	1.5	5
189	Towards better characterization of global warming impacts in the environment through climate classifications with improved global models. International Journal of Climatology, 2022, 42, 5197-5217.	1.5	6
190	Evaluating Climate Models'™ Cloud Feedbacks Against Expert Judgment. Journal of Geophysical Research D: Atmospheres, 2022, 127, e2021JD035198.	1.2	24
191	Benesh: a Programming Model for Coupled Scientific Workflows. , 2020, , .		0
192	The DOE E3SM v1.2 Cryosphere Configuration: Description and Simulated Antarctic Ice Shelf Basal Melting. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	15
193	Nitrification, denitrification, and competition for soil N: Evaluation of two Earth System Models against observations. Ecological Applications, 2022, 32, e2528.	1.8	6
194	An Assessment of Nonhydrostatic and Hydrostatic Dynamical Cores at Seasonal Time Scales in the Energy Exascale Earth System Model (E3SM). Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	4
195	Prescreening-Based Subset Selection for Improving Predictions of Earth System Models With Application to Regional Prediction of Red Tide. Frontiers in Earth Science, 2022, 10, 1-19.	0.8	3
196	Spurious Late Historical Era Warming in CESM2 Driven by Prescribed Biomass Burning Emissions. Geophysical Research Letters, 2022, 49, .	1.5	29
197	Conservation of Dry Air, Water, and Energy in CAM and Its Potential Impact on Tropical Rainfall. Journal of Climate, 2022, 35, 2895-2917.	1.2	2
198	The Earth Model Column Collaboratory (EMC <sup>2</sup> ) v1.1: an open-source ground-based lidar and radar instrument simulator and subcolumn generator for large-scale models. Geoscientific Model Development, 2022, 15, 901-927.	1.3	4
199	The Madden-Julian Oscillation in the Energy Exascale Earth System Model Version 1. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	1
200	Guidelines for Publicly Archiving Terrestrial Model Data to Enhance Usability, Intercomparison, and Synthesis. Data Science Journal, 2022, 21, 3.	0.6	3
201	Assessing Two Approaches for Enhancing the Range of Simulated Scales in the E3SMv1 and the Impact on the Character of Hourly US Precipitation. Geophysical Research Letters, 2022, 49, .	1.5	4
202	High-order multirate explicit time-stepping schemes for the baroclinic-barotropic split dynamics in primitive equations. Journal of Computational Physics, 2022, , 111050.	1.9	0
203	A new large-scale suspended sediment model and its application over the United States. Hydrology and Earth System Sciences, 2022, 26, 665-688.	1.9	14
204	Supporting hierarchical soil biogeochemical modeling: version 2 of the Biogeochemical Transport and Reaction model (BeTR-v2). Geoscientific Model Development, 2022, 15, 1619-1632.	1.3	1

#	ARTICLE	IF	CITATIONS
205	Abrupt emissions reductions during COVID-19 contributed to record summer rainfall in China. <i>Nature Communications</i> , 2022, 13, 959.	5.8	35
206	Impacts of Precipitation Modeling on Cloud Feedback in MIROC6. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	1
207	Earth system model parameter adjustment using a Green's functions approach. <i>Geoscientific Model Development</i> , 2022, 15, 2309-2324.	1.3	2
209	More Realistic Intermediate Depth Dry Firn Densification in the Energy Exascale Earth System Model (E3SM). <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	3
210	Ocean Surface Flux Algorithm Effects on Tropical Indo-Pacific Intraseasonal Precipitation. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	4
211	Better calibration of cloud parameterizations and subgrid effects increases the fidelity of the E3SM Atmosphere Model version 1. <i>Geoscientific Model Development</i> , 2022, 15, 2881-2916.	1.3	17
212	The ICON Earth System Model Version 1.0. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	16
213	Impacts of Sub-Grid Topographic Representations on Surface Energy Balance and Boundary Conditions in the E3SM Land Model: A Case Study in Sierra Nevada. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	14
214	Root foraging alters global patterns of ecosystem legacy from climate perturbations. <i>Journal of Geophysical Research G: Biogeosciences</i> , 0, , .	1.3	3
215	Understanding power variation and its implications on performance optimization on the Cori supercomputer. , 2021, , .		5
217	Mesoscale Convective Systems in a Superparameterized E3SM Simulation at High Resolution. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	11
218	A Comparison of Machine Learning Methods to Forecast Tropospheric Ozone Levels in Delhi. <i>Atmosphere</i> , 2022, 13, 46.	1.0	15
219	Simulation of ENSO teleconnections to precipitation extremes over the US in the high resolution version of E3SM. <i>Journal of Climate</i> , 2021, , 1-62.	1.2	3
220	Fast Gaussian Process Estimation for Large-Scale In Situ Inference using Convolutional Neural Networks. , 2021, , .		0
221	CondiDiag1.0: a flexible online diagnostic tool for conditional sampling and budget analysis in the E3SM atmosphere model (EAM). <i>Geoscientific Model Development</i> , 2022, 15, 3205-3231.	1.3	4
222	OCEANFILMS (Organic Compounds from Ecosystems to Aerosols: Natural Films and Interfaces via) Tj ETQq1 1 0.784314 rgBT /Overlook climate model and impacts on clouds. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 5223-5251.	1.9	14
223	Earth system models for regional environmental management of red tide: Prospects and limitations of current generation models and next generation development. <i>Environmental Earth Sciences</i> , 2022, 81, .	1.3	3
225	Examining Parameterizations of Potential Temperature Variance Across Varied Landscapes for Use in Earth System Models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	3

#	ARTICLE	IF	CITATIONS
226	An evaluation of the E3SMv1 Arctic ocean and sea-ice regionally refined model. <i>Geoscientific Model Development</i> , 2022, 15, 3133-3160.	1.3	4
235	Diurnal Rainfall Response to the Physiological and Radiative Effects of CO <sub>2</sub> in Tropical Forests in the Energy Exascale Earth System Model v1. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	1
236	MPAS-Seaice (v1.0.0): sea-ice dynamics on unstructured Voronoi meshes. <i>Geoscientific Model Development</i> , 2022, 15, 3721-3751.	1.3	6
237	A scalability study of the Ice-sheet and Sea-level System Model (ISSM, version 4.18). <i>Geoscientific Model Development</i> , 2022, 15, 3753-3771.	1.3	3
238	Description of historical and future projection simulations by the global coupled E3SMv1.0 model as used in CMIP6. <i>Geoscientific Model Development</i> , 2022, 15, 3941-3967.	1.3	1
239	Metrics for Evaluating CMIP6 Representation of Daily Precipitation Probability Distributions. <i>Journal of Climate</i> , 2022, 35, 5719-5743.	1.2	3
240	Earth System Model Aerosol-Cloud Diagnostics (ESMAC Diags) package, version 1: assessing E3SM aerosol predictions using aircraft, ship, and surface measurements. <i>Geoscientific Model Development</i> , 2022, 15, 4055-4076.	1.3	3
241	Modeling subgrid lake energy balance in ORCHIDEE terrestrial scheme using the FLake lake model. <i>Geoscientific Model Development</i> , 2022, 15, 4275-4295.	1.3	2
244	Developing an ELM Ecosystem Dynamics Model on GPU with OpenACC. <i>Lecture Notes in Computer Science</i> , 2022, , 291-303.	1.0	3
245	Seasonal extrema of sea surface temperature in CMIP6 models. <i>Ocean Science</i> , 2022, 18, 839-855.	1.3	5
246	CMIP6 multi-model evaluation of summer extreme precipitation over East Asia. <i>Modeling Earth Systems and Environment</i> , 0, , .	1.9	2
247	Effective radiative forcing of anthropogenic aerosols in E3SM version 1: historical changes, causality, decomposition, and parameterization sensitivities. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 9129-9160.	1.9	16
248	Global Dust Cycle and Direct Radiative Effect in E3SM Version 1: Impact of Increasing Model Resolution. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	12
249	Estimated cloud-top entrainment index explains positive low-cloud-cover feedback. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	2
250	Using a surrogate-assisted Bayesian framework to calibrate the runoff-generation scheme in the Energy Exascale Earth System Model (E3SM) v1. <i>Geoscientific Model Development</i> , 2022, 15, 5021-5043.	1.3	3
251	Region-adaptive, Error-controlled Scientific Data Compression using Multilevel Decomposition. , 2022, , .		2
252	Thermodynamically consistent versions of approximations used in modelling moist air. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2022, 148, 3184-3210.	1.0	5
253	Development of Land-River Two-Way Hydrologic Coupling for Floodplain Inundation in the Energy Exascale Earth System Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	8



#	ARTICLE	IF	CITATIONS
254	Reconciling and Improving Formulations for Thermodynamics and Conservation Principles in Earth System Models (ESMs). <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	8
256	Modeling Global Carbon Costs of Plant Nitrogen and Phosphorus Acquisition. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	13
257	Influence of Hillslope Flow on Hydroclimatic Evolution Under Climate Change. <i>Earth's Future</i> , 2022, 10, .	2.4	2
258	Checkerboard patterns in E3SMv2 and E3SM-MMFv2. <i>Geoscientific Model Development</i> , 2022, 15, 6243-6257.	1.3	3
259	Global sensitivity analysis using the ultra-low resolution Energy Exascale Earth System Model. <i>Journal of Advances in Modeling Earth Systems</i> , 0, , .	1.3	0
260	Climate change scenarios over Southeast Asia. <i>APN Science Bulletin</i> , 2022, 12, 102-122.	0.2	2
261	TIMCOM model datasets for the CMIP6 Ocean Model Intercomparison Project. <i>Ocean Modelling</i> , 2022, 179, 102109.	1.0	1
262	Aerosol climate modeling. , 2022, , 187-248.		0
263	gdess: A framework for evaluating simulated atmospheric CO2 in Earth System Models. <i>Journal of Open Source Software</i> , 2022, 7, 4326.	2.0	0
264	Impact of the numerical solution approach of a plant hydrodynamic model (v0.1) on vegetation dynamics. <i>Geoscientific Model Development</i> , 2022, 15, 6385-6398.	1.3	4
265	Evaluation of the CMIP6 Performance in Simulating Precipitation in the Amazon River Basin. <i>Climate</i> , 2022, 10, 122.	1.2	9
266	Representing surface heterogeneity in land-atmosphere coupling in E3SMv1 single-column model over ARM SGP during summertime. <i>Geoscientific Model Development</i> , 2022, 15, 6371-6384.	1.3	3
267	Stability Analysis of Coupled Advection-Diffusion Models with Bulk Interface Condition. <i>Journal of Scientific Computing</i> , 2022, 93, .	1.1	0
268	Relative Controls of Vapor Pressure Deficit and Soil Water Stress on Canopy Conductance in Global Simulations by an Earth System Model. <i>Earth's Future</i> , 2022, 10, .	2.4	3
269	Further improvement and evaluation of nudging in the E3SM Atmosphere Model version 1 (EAMv1): simulations of the mean climate, weather events, and anthropogenic aerosol effects. <i>Geoscientific Model Development</i> , 2022, 15, 6787-6816.	1.3	3
270	How Well Do CMIP6 Models Simulate the Greening of the Tibetan Plateau?. <i>Remote Sensing</i> , 2022, 14, 4633.	1.8	3
271	Resolving Away Stratocumulus Biases in Modern Global Climate Models. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	4
272	A climate risk analysis of Earth's forests in the 21st century. <i>Science</i> , 2022, 377, 1099-1103.	6.0	48



#	ARTICLE	IF	CITATIONS
273	Numerical Weather Prediction at 200m Local Resolution Based on an Unstructured Grid Global Model. <i>Earth and Space Science</i> , 2022, 9, .	1.1	0
274	A hierarchical sparse Gaussian process for in situ inference in expensive physics simulations. , 2022, , .		1
275	Global barotropic tide modeling using inline self-attraction and loading in MPAS-Ocean. <i>Journal of Advances in Modeling Earth Systems</i> , 0, , .	1.3	4
276	Learning Why: Data-Driven Causal Evaluations of Climate Models.. , 2021, , .		1
277	Modeling the topographic influence on aboveground biomass using a coupled model of hillslope hydrology and ecosystem dynamics. <i>Geoscientific Model Development</i> , 2022, 15, 7879-7901.	1.3	5
278	Cloud Phase Simulation at High Latitudes in EAMv2: Evaluation Using CALIPSO Observations and Comparison With EAMv1. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	5
279	Increasing Hurricane Intensification Rate Near the US Atlantic Coast. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	13
281	Convective Momentum Transport and Its Impact on the Madden-Julian Oscillation in E3SM-MMF. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	3
282	Future Changes in Active and Inactive Atlantic Hurricane Seasons in the Energy Exascale Earth System Model. <i>Geophysical Research Letters</i> , 0, , .	1.5	1
283	The Role of Irrigation Expansion on Historical Climate Change: Insights From CMIP6. <i>Earth's Future</i> , 2022, 10, .	2.4	9
284	The DOE E3SM Model Version 2: Overview of the Physical Model and Initial Model Evaluation. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	27
285	Vegetation clumping modulates global photosynthesis through adjusting canopy light environment. <i>Global Change Biology</i> , 2023, 29, 731-746.	4.2	9
286	Investigating coastal backwater effects and flooding in the coastal zone using a global river transport model on an unstructured mesh. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 5473-5491.	1.9	9
287	Application-specific optimal model weighting of global climate models: A red tide example. <i>Climate Services</i> , 2022, 28, 100334.	1.0	3
288	Toward Ultrahigh-Resolution E3SM Land Modeling on Exascale Computers. <i>Computing in Science and Engineering</i> , 2022, 24, 44-53.	1.2	2
289	An unstructured CD-grid variational formulation for sea ice dynamics. <i>Journal of Computational Physics</i> , 2023, 473, 111742.	1.9	2
290	Variation of Ground Surface Freezing/Thawing Index in China under the CMIP6 Warming Scenarios. <i>Sustainability</i> , 2022, 14, 14458.	1.6	3
291	Dust pollution in China affected by different spatial and temporal types of El Niño. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 14489-14502.	1.9	2

#	ARTICLE	IF	CITATIONS
292	A method for transporting cloud-resolving model variance in a multiscale modeling framework. <i>Geoscientific Model Development</i> , 2022, 15, 8999-9013.	1.3	0
293	The E3SM Diagnostics Package (E3SM Diags v2.7): a Python-based diagnostics package for Earth system model evaluation. <i>Geoscientific Model Development</i> , 2022, 15, 9031-9056.	1.3	2
294	Performance of Two-Moment Stratiform Microphysics With Prognostic Precipitation in GFDL's CM4.0. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	0
295	Correlation Between Cloud Adjustments and Cloud Feedbacks Responsible for Larger Range of Climate Sensitivities in CMIP6. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	2
296	Modeling Perennial Bioenergy Crops in the E3SM Land Model (ELMv2). <i>Journal of Advances in Modeling Earth Systems</i> , 2023, 15, .	1.3	5
297	Pyrocumulonimbus Events over British Columbia in 2017: An Ensemble Model Study of Parameter Sensitivities and Climate Impacts of Wildfire Smoke in the Stratosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 0, , .	1.2	0
298	Storm Surge Modeling as an Application of Local Time-Stepping in MPAS-Ocean. <i>Journal of Advances in Modeling Earth Systems</i> , 2023, 15, .	1.3	1
299	Potential Weakening of the June 2012 North American Derecho Under Future Warming Conditions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2023, 128, .	1.2	0
300	Improving snow albedo modeling in the E3SM land model (version 2.0) and assessing its impacts on snow and surface fluxes over the Tibetan Plateau. <i>Geoscientific Model Development</i> , 2023, 16, 75-94.	1.3	8
301	Scalable self attraction and loading calculations for unstructured ocean tide models. <i>Ocean Modelling</i> , 2023, 182, 102160.	1.0	2
302	Changes in the ground surface temperature in permafrost regions along the Qinghai-Tibet engineering corridor from 1900 to 2014: A modified assessment of CMIP6. <i>Advances in Climate Change Research</i> , 2023, 14, 85-96.	2.1	5
303	The June 2012 North American Derecho: A Testbed for Evaluating Regional and Global Climate Modeling Systems at Cloud-Resolving Scales. <i>Journal of Advances in Modeling Earth Systems</i> , 2023, 15, .	1.3	1
304	Improving the representation of shallow cumulus convection with the simplified-higher-order-closure-mass-flux (SHOC+MF v1.0) approach. <i>Geoscientific Model Development</i> , 2023, 16, 1909-1924.	1.3	1
305	CMIP6 Earth System Models Project Greater Acceleration of Climate Zone Change Due To Stronger Warming Rates. <i>Earth's Future</i> , 2023, 11, .	2.4	6
306	Peatland dynamics: A review of process-based models and approaches. <i>Science of the Total Environment</i> , 2023, 877, 162890.	3.9	4
307	SPEL: Software tool for Porting E3SM Land Model with OpenACC in a Function Unit Test Framework. , 2022, , .		2
308	Evaluation of E3SM land model snow simulations over the western United States. <i>Cryosphere</i> , 2023, 17, 673-697.	1.5	3
309	Barotropic tides in MPAS-Ocean (E3SM V2): impact of ice shelf cavities. <i>Geoscientific Model Development</i> , 2023, 16, 1297-1314.	1.3	2

#	ARTICLE	IF	CITATIONS
310	Hydrostatic and Non-Hydrostatic Baroclinic Instability in the Dynamical Core of the DOE Global Climate Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2023, 15, .	1.3	0
311	A dominant mode in the first phase of the Asian summer monsoon rainfall: role of antecedent remote land surface temperature. <i>Climate Dynamics</i> , 2023, 61, 2735-2751.	1.7	1
312	Weakened interannual Tropical Atlantic variability in CMIP6 historical simulations. <i>Climate Dynamics</i> , 2023, 61, 2797-2813.	1.7	0
313	Incorporation of aerosol into the COSPv2 satellite lidar simulator for climate model evaluation. <i>Geoscientific Model Development</i> , 2023, 16, 1359-1377.	1.3	0
314	Embracing fine-root system complexity in terrestrial ecosystem modeling. <i>Global Change Biology</i> , 2023, 29, 2871-2885.	4.2	3
315	Evaluation of aerosol-cloud interactions in E3SM using a Lagrangian framework. <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 2789-2812.	1.9	3
316	Strategies for conservative and non-conservative monotone remapping on the sphere. <i>Geoscientific Model Development</i> , 2023, 16, 1537-1551.	1.3	2
317	Contrasting the Biophysical and Radiative Effects of Rising CO <sub>2</sub> Concentrations on Ozone Dry Deposition Fluxes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2023, 128, .	1.2	0
318	Evaluating CMIP6 Historical Mean Precipitation over Africa and the Arabian Peninsula against Satellite-Based Observation. <i>Atmosphere</i> , 2023, 14, 607.	1.0	5
319	Estimating Arctic Ocean Acoustic Travel Times Using an Earth System Model. <i>Geophysical Research Letters</i> , 2023, 50, .	1.5	1
320	Molecular Imaging Reveals Two Distinct Mixing States of PM <sub>2.5</sub> Particles Sampled in a Typical Beijing Winter Pollution Case. <i>Environmental Science &amp; Technology</i> , 2023, 57, 6273-6283.	4.6	0
321	Multilevel Robustness for 2D Vector Field Feature Tracking, Selection and Comparison. <i>Computer Graphics Forum</i> , 2023, 42, .	1.8	1
334	Developing Ultrahigh-Resolution E3SM Land Model for GPU Systems. <i>Lecture Notes in Computer Science</i> , 2023, , 277-290.	1.0	0
336	Impacts of Air Pollutants on Climate Change: Importance of SLCF Co-Control for Climate Change Mitigation in Short- and Long-Term Future. , 2023, , 1-25.		0
339	Harnessing Extreme Heterogeneity for Ocean Modeling with Tensors. , 2023, , .		0
361	Impacts of Air Pollutants on Climate Change: Importance of SLCF Co-control for Climate Change Mitigation in Short- and Long-Term Future. , 2023, , 1273-1297.		0