

Katherine Evans

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

1,856
citations

471509

17
h-index

276875

41
g-index

65
all docs

65
docs citations

65
times ranked

2778
citing authors

#	ARTICLE	IF	CITATIONS
1	Phyllode inoculation provides a rapid protocol for preliminary screening of Acacia species for tolerance to Ceratocystis wilt and canker disease. <i>European Journal of Plant Pathology</i> , 2022, 163, 321-339.	1.7	1
2	Simulation of Hurricane Harvey flood event through coupled hydrologic-hydraulic models: Challenges and next steps. <i>Journal of Flood Risk Management</i> , 2021, 14, e12716.	3.3	14
3	A Scalable Semi-Implicit Barotropic Mode Solver for the MPAS-Ocean. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002238.	3.8	2
4	Progress towards accelerating the unified model on hybrid multi-core systems. , 2021, , .		0
5	The role of humidity in determining future electricity demand in the southeastern United States. <i>Environmental Research Letters</i> , 2021, 16, 114017.	5.2	6
6	Automated Fortran-C++ Bindings for Large-Scale Scientific Applications. <i>Computing in Science and Engineering</i> , 2020, 22, 84-94.	1.2	3
7	Shift Toward Intense and Widespread Precipitation Events Over the United States by Mid-21st Century. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089899.	4.0	12
8	Tropical Indian Ocean Mediates ENSO Influence Over Central Southwest Asia During the Wet Season. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089308.	4.0	25
9	Identification of major moisture sources across the Mediterranean Basin. <i>Climate Dynamics</i> , 2020, 54, 4109-4127.	3.8	16
10	High-performance computing in water resources hydrodynamics. <i>Journal of Hydroinformatics</i> , 2020, 22, 1217-1235.	2.4	27
11	Doubling of U.S. Population Exposure to Climate Extremes by 2050. <i>Earth's Future</i> , 2020, 8, e2019EF001421.	6.3	46
12	An Overview of the Atmospheric Component of the Energy Exascale Earth System Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2377-2411.	3.8	168
13	Shift in seasonal climate patterns likely to impact residential energy consumption in the United States. <i>Environmental Research Letters</i> , 2019, 14, 074006.	5.2	16
14	A Multivariate Approach to Ensure Statistical Reproducibility of Climate Model Simulations. , 2019, , .		6
15	LIVKit 2.1: automated and extensible ice sheet model validation. <i>Geoscientific Model Development</i> , 2019, 12, 1067-1086.	3.6	4
16	Description and evaluation of the Community Ice Sheet Model (CISM) v2.1. <i>Geoscientific Model Development</i> , 2019, 12, 387-424.	3.6	68
17	Ongoing solution reproducibility of earth system models as they progress toward exascale computing. <i>International Journal of High Performance Computing Applications</i> , 2019, 33, 784-790.	3.7	5
18	Northern Hemisphere Blocking in 1/425-km Resolution E3SM v0.3 Atmosphere-Land Simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 2465-2482.	3.3	7

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19	The DOE E3SM Coupled Model Version 1: Overview and Evaluation at Standard Resolution. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2089-2129.	3.8	404
20	Performance analysis of fully explicit and fully implicit solvers within a spectral element shallow-water atmosphere model. <i>International Journal of High Performance Computing Applications</i> , 2019, 33, 268-284.	3.7	4
21	An efficient Bayesian data-worth analysis using a multilevel Monte Carlo method. <i>Advances in Water Resources</i> , 2018, 113, 223-235.	3.8	13
22	Model Resolution Sensitivity of the Simulation of North Atlantic Oscillation Teleconnections to Precipitation Extremes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 11,392.	3.3	8
23	Characteristics of Bay of Bengal Monsoon Depressions in the 21st Century. <i>Geophysical Research Letters</i> , 2018, 45, 6637-6645.	4.0	23
24	Exploring an Ensemble-Based Approach to Atmospheric Climate Modeling and Testing at Scale. <i>Procedia Computer Science</i> , 2017, 108, 735-744.	2.0	7
25	LIVKit: An extensible, python-based, land ice verification and validation toolkit for ice sheet models. <i>Journal of Advances in Modeling Earth Systems</i> , 2017, 9, 854-869.	3.8	7
26	An ice sheet model validation framework for the Greenland ice sheet. <i>Geoscientific Model Development</i> , 2017, 10, 255-270.	3.6	18
27	On the Use of Finite Difference Matrix-vector Products in Newton-krylov Solvers for Implicit Climate Dynamics with Spectral Elements. <i>Procedia Computer Science</i> , 2015, 51, 2036-2045.	2.0	3
28	A case study of CUDA FORTRAN and OpenACC for an atmospheric climate kernel. <i>Journal of Computational Science</i> , 2015, 9, 1-6.	2.9	36
29	Climate, environmental and socio-economic change: weighing up the balance in vector-borne disease transmission. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2015, 370, 20130551.	4.0	215
30	Toward a Science of Tumor Forecasting for Clinical Oncology. <i>Cancer Research</i> , 2015, 75, 918-923.	0.9	74
31	Algorithmically scalable block preconditioner for fully implicit shallow-water equations in CAM-SE. <i>Computational Geosciences</i> , 2015, 19, 49-61.	2.4	6
32	Fidelity of Precipitation Extremes in High Resolution Global Climate Simulations. <i>Procedia Computer Science</i> , 2015, 51, 2178-2187.	2.0	12
33	Web-based visual analytics for extreme scale climate science. , 2014, , .		6
34	A spectral transform dynamical core option within the Community Atmosphere Model (CAM4). <i>Journal of Advances in Modeling Earth Systems</i> , 2014, 6, 902-922.	3.8	10
35	Emulation to simulate low-resolution atmospheric data. <i>International Journal of Computer Mathematics</i> , 2014, 91, 770-780.	1.8	2
36	Intermediate frequency atmospheric disturbances: A dynamical bridge connecting western U.S. extreme precipitation with East Asian cold surges. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 3723-3735.	3.3	25

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37	Linearity of Climate Response to Increases in Black Carbon Aerosols. <i>Journal of Climate</i> , 2013, 26, 8223-8237.	3.2	27
38	A Spectral Deferred Correction Method Applied to the Shallow Water Equations on a Sphere. <i>Monthly Weather Review</i> , 2013, 141, 3435-3449.	1.4	14
39	AMIP Simulation with the CAM4 Spectral Element Dynamical Core. <i>Journal of Climate</i> , 2013, 26, 689-709.	3.2	60
40	Interannual Tropospheric Aerosol Variability in the Late Twentieth Century and Its Impact on Tropical Atlantic and West African Climate by Direct and Semidirect Effects. <i>Journal of Climate</i> , 2012, 25, 8031-8056.	3.2	12
41	A modern solver interface to manage solution algorithms in the Community Earth System Model. <i>International Journal of High Performance Computing Applications</i> , 2012, 26, 54-62.	3.7	9
42	CAM-SE: A scalable spectral element dynamical core for the Community Atmosphere Model. <i>International Journal of High Performance Computing Applications</i> , 2012, 26, 74-89.	3.7	302
43	Implementation of the Jacobian-free Newton-Krylov method for solving the first-order ice sheet momentum balance. <i>Journal of Computational Physics</i> , 2011, 230, 6531-6545.	3.8	19
44	Multiwavelet Discontinuous Galerkin-Accelerated Exact Linear Part (ELP) Method for the Shallow-Water Equations on the Cubed Sphere. <i>Monthly Weather Review</i> , 2011, 139, 457-473.	1.4	12
45	Accuracy Analysis of a Spectral Element Atmospheric Model Using a Fully Implicit Solution Framework. <i>Monthly Weather Review</i> , 2010, 138, 3333-3341.	1.4	22
46	Time Acceleration Methods for Advection on the Cubed Sphere. <i>Lecture Notes in Computer Science</i> , 2009, , 253-262.	1.3	1
47	Atmospheric and Oceanic Computational Science. <i>Lecture Notes in Computer Science</i> , 2009, , 241-242.	1.3	0
48	Temporal accuracy analysis of phase change convection simulations using the JFNK-SIMPLE algorithm. <i>International Journal for Numerical Methods in Fluids</i> , 2007, 55, 637-653.	1.6	10
49	Enhanced algorithm efficiency for phase change convection using a multigrid preconditioner with a SIMPLE smoother. <i>Journal of Computational Physics</i> , 2007, 223, 121-126.	3.8	5
50	Development of a 2-D algorithm to simulate convection and phase transition efficiently. <i>Journal of Computational Physics</i> , 2006, 219, 404-417.	3.8	21
51	Piecewise Tendency Diagnosis of Weather Regime Transitions. <i>Journals of the Atmospheric Sciences</i> , 2003, 60, 1941-1959.	1.7	24
52	The Statistics and Horizontal Structure of Anomalous Weather Regimes in the Community Climate Model. <i>Monthly Weather Review</i> , 1998, 126, 841-859.	1.4	9