William H Lipscomb

List of Publications by Year
in descending order

67 papers	8,231 citations	94381 37 h-index	102432 66 g-index
94 all docs	94 docs citations	94 times ranked	8274 citing authors

#	Article	IF	Citations
1	The Community Earth System Model: A Framework for Collaborative Research. Bulletin of the American Meteorological Society, 2013, 94, 1339-1360.	1.7	1,848
2	The Community Earth System Model Version 2 (CESM2). Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001916.	1.3	935
3	The Community Land Model Version 5: Description of New Features, Benchmarking, and Impact of Forcing Uncertainty. Journal of Advances in Modeling Earth Systems, 2019, 11, 4245-4287.	1.3	692
4	An energy-conserving thermodynamic model of sea ice. Journal of Geophysical Research, 1999, 104, 15669-15677.	3.3	414
5	The DOE E3SM Coupled Model Version 1: Overview and Evaluation at Standard Resolution. Journal of Advances in Modeling Earth Systems, 2019, 11, 2089-2129.	1.3	404
6	Ice-sheet model sensitivities to environmental forcing and their use in projecting future sea level (the) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.1	222
7	Projected land ice contributions to twenty-first-century sea level rise. Nature, 2021, 593, 74-82.	13.7	200
8	Adaptive mesh, finite volume modeling of marine ice sheets. Journal of Computational Physics, 2013, 232, 529-549.	1.9	199
9	Ice Sheet Model Intercomparison Project (ISMIP6) contribution to CMIP6. Geoscientific Model Development, 2016, 9, 4521-4545.	1.3	199
10	ISMIP6 Antarctica: a multi-model ensemble of the Antarctic ice sheet evolution over the 21st century. Cryosphere, 2020, 14, 3033-3070.	1.5	198
11	The PMIP4 contribution to CMIP6 â€“ Part 2: Two interglacials, scientific objective and experimental design for Holocene and Last Interglacial simulations. Geoscientific Model Development, 2017, 10, 3979-4003.	1.3	171
12	Influence of the Sea Ice Thickness Distribution on Polar Climate in CCSM3. Journal of Climate, 2006, 19, 2398-2414.	1.2	168
13	Ridging, strength, and stability in high-resolution sea ice models. Journal of Geophysical Research, 2007, 112, .	3.3	145
14	The future sea-level contribution of the Greenland ice sheet: a multi-model ensemble study of ISMIP6. Cryosphere, 2020, 14, 3071-3096.	1.5	144
15	Modeling Sea Ice Transport Using Incremental Remapping. Monthly Weather Review, 2004, 132, 1341-1354.	0.5	124
16	Remapping the thickness distribution in sea ice models. Journal of Geophysical Research, 2001, 106, 13989-14000.	3.3	121
17	The Community Earth System Model: A Framework for Collaborative Research. Bulletin of the American Meteorological Society, 0, , 130204122247009.	1.7	103
18	Late-Twentieth-Century Simulation of Arctic Sea Ice and Ocean Properties in the CCSM4. Journal of Climate, 2012, 25, 1431-1452.	1.2	99

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19	Projecting Antarctica's contribution to future sea level rise from basal ice shelf melt using linear response functions of 16 ice sheet models (LARMIP-2). Earth System Dynamics, 2020, 11, 35-76.	2.7	92
20	Implementation and Initial Evaluation of the Glimmer Community Ice Sheet Model in the Community Earth System Model. Journal of Climate, 2013, 26, 7352-7371.	1.2	89
21	Design and results of the ice sheet model initialisation experiments initMIP-Greenland: an ISMIP6 intercomparison. Cryosphere, 2018, 12, 1433-1460.	1.5	89
22	Insights into spatial sensitivities of ice mass response to environmental change from the SeaRISE ice sheet modeling project II: Greenland. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1025-1044.	1.0	79
23	Sea-ice models for climate study: retrospective and new directions. Journal of Glaciology, 2010, 56, 1162-1172.	1.1	78
24	Improving the Representation of Polar Snow and Firn in the Community Earth System Model. Journal of Advances in Modeling Earth Systems, 2017, 9, 2583-2600.	1.3	78
25	Global glacier changes: a revised assessment of committed mass losses and sampling uncertainties. Cryosphere, 2013, 7, 1565-1577.	1.5	76
26	Experimental protocol for sea level projections from ISMIP6 stand-alone ice sheet models. Cryosphere, 2020, 14, 2331-2368.	1.5	72
27	Antarctic ice sheet response to sudden and sustained ice-shelf collapse (ABUMIP). Journal of Glaciology, 2020, 66, 891-904.	1.1	70
28	initMIP-Antarctica: an ice sheet model initialization experiment of ISMIP6. Cryosphere, 2019, 13, 1441-1471.	1.5	69
29	Description and evaluation of the Community Ice Sheet Model (CISM) v2.1. Geoscientific Model Development, 2019, 12, 387-424.	1.3	68
30	Insights into spatial sensitivities of ice mass response to environmental change from the SeaRISE ice sheet modeling project I: Antarctica. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1002-1024.	1.0	63
31	MPAS-Albany Land Ice (MALI): a variable-resolution ice sheet model for Earth system modeling using Voronoi grids. Geoscientific Model Development, 2018, 11, 3747-3780.	1.3	54
32	An Incremental Remapping Transport Scheme on a Spherical Geodesic Grid. Monthly Weather Review, 2005, 133, 2335-2350.	0.5	53
33	Results of the third Marine Ice Sheet Model Intercomparison Project (MISMIP+). Cryosphere, 2020, 14, 2283-2301.	1.5	53
34	Greenland Surface Mass Balance as Simulated by the Community Earth System Model. Part I: Model Evaluation and 1850â€“2005 Results. Journal of Climate, 2013, 26, 7793-7812.	1.2	51
35	Consistent approximations and boundary conditions for ice-sheet dynamics from a principle of least action. Journal of Glaciology, 2010, 56, 480-496.	1.1	49
36	Increasing mass loss from Greenland's Mittivakkat Gletscher. Cryosphere, 2011, 5, 341-348.	1.5	44

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37	Parameterization of basal friction near grounding lines in a one-dimensional ice sheet model. Cryosphere, 2014, 8, 1239-1259.	1.5	44
38	Greenland Surface Mass Balance as Simulated by the Community Earth System Model. Part II: Twenty-First-Century Changes. Journal of Climate, 2014, 27, 215-226.	1.2	41
39	Greenland Ice Sheet Contribution to 21st Century Sea Level Rise as Simulated by the Coupled CESM2.1â€CISM2.1. Geophysical Research Letters, 2020, 47, e2019GL086836.	1.5	40
40	Sensitivity analysis and parameter tuning scheme for global sea-ice modeling. Ocean Modelling, 2006, 14, 61-80.	1.0	35
41	Rising Oceans Guaranteed: Arctic Land Ice Loss and Sea Level Rise. Current Climate Change Reports, 2018, 4, 211-222.	2.8	29
42	Future Sea Level Change Under Coupled Model Intercomparison Project Phase 5 and Phase 6 Scenarios From the Greenland and Antarctic Ice Sheets. Geophysical Research Letters, 2021, 48, e2020GL091741.	1.5	28
43	A Community Ice Sheet Model for Sea Level Prediction: Building a Next-Generation Community Ice Sheet Model; Los Alamos, New Mexico, 18â€“20 August 2008. Eos, 2009, 90, 23.	0.1	27
44	Modeling 5 years of subglacial lake activity in the MacAyeal Ice Stream (Antarctica) catchment through assimilation of ICESat laser altimetry. Journal of Glaciology, 2011, 57, 1098-1112.	1.1	26
45	CO₂ Increase Experiments Using the CESM: Relationship to Climate Sensitivity and Comparison of CESM1 to CESM2. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002120.	1.3	25
46	PresentâEDay Greenland Ice Sheet Climate and Surface Mass Balance in CESM2. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005318.	1.0	24
47	Future climate warming increases Greenland ice sheet surface mass balance variability. Geophysical Research Letters, 2014, 41, 470-475.	1.5	20
48	High resolution simulations of Arctic sea ice, 1979â€“1993. Polar Research, 2003, 22, 67-74.	1.6	18
49	An ice sheet model validation framework for the Greenland ice sheet. Geoscientific Model Development, 2017, 10, 255-270.	1.3	18
50	Surface mass balance downscaling through elevation classes in an Earth system model: application to the Greenland ice sheet. Cryosphere, 2019, 13, 3193-3208.	1.5	18
51	Volume and velocity changes at Mittivakkat Gletscher, southeast Greenland. Journal of Glaciology, 2013, 59, 660-670.	1.1	17
52	Investigating controls on sea ice algal production using E3SMv1.1-BGC. Annals of Glaciology, 2020, 61, 51-72.	2.8	16
53	ISMIP6-based projections of ocean-forced Antarctic Ice Sheet evolution using the Community Ice Sheet Model. Cryosphere, 2021, 15, 633-661.	1.5	16
54	A technique for generating consistent ice sheet initial conditions for coupled ice sheet/climate models. Geoscientific Model Development, 2014, 7, 1183-1195.	1.3	13

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55	Description and Demonstration of the Coupled Community Earth System Model v2 â€“ Community Ice Sheet Model v2 (CESM2â€CISM2). Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002356.	1.3	13
56	The pattern of anthropogenic signal emergence in Greenland Ice Sheet surface mass balance. Geophysical Research Letters, 2014, 41, 6002-6008.	1.5	12
57	Accelerated Greenland Ice Sheet Mass Loss Under High Greenhouse Gas Forcing as Simulated by the Coupled CESM2.1â€CISM2.1. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002031.	1.3	12
58	A Variational Method for Sea Ice Ridging in Earth System Models. Journal of Advances in Modeling Earth Systems, 2019, 11, 771-805.	1.3	11
59	Remapping of Greenland ice sheet surface mass balance anomalies for large ensemble sea-level change projections. Cryosphere, 2020, 14, 1747-1762.	1.5	11
60	An Efficient Ice Sheet/Earth System Model Spinâ€up Procedure for CESM2â€CISM2: Description, Evaluation, and Broader Applicability. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001984.	1.3	10
61	A comparison of the stability and performance of depth-integrated ice-dynamics solvers. Cryosphere, 2022, 16, 689-709.	1.5	8
62	Incorporating arbitrary basal topography in the variational formulation of ice-sheet models. Journal of Glaciology, 2011, 57, 461-467.	1.1	7
63	LIVVkit: An extensible, pythonâ€based, land ice verification and validation toolkit for ice sheet models. Journal of Advances in Modeling Earth Systems, 2017, 9, 854-869.	1.3	7
64	Marine ice sheet experiments with the Community Ice Sheet Model. Cryosphere, 2021, 15, 3229-3253.	1.5	7
65	Retreat and Regrowth of the Greenland Ice Sheet During the Last Interglacial as Simulated by the CESM2â€CISM2 Coupled Climateâ€“Ice Sheet Model. Paleoceanography and Paleoclimatology, 2021, 36, .	1.3	7
66	Statistical emulation of a perturbed basal melt ensemble of an ice sheet model to better quantify Antarctic sea level rise uncertainties. Cryosphere, 2021, 15, 2683-2699.	1.5	6
67	MPAS-Seaice (v1.0.0): sea-ice dynamics on unstructured Voronoi meshes. Geoscientific Model Development, 2022, 15, 3721-3751.	1.3	6