Tilo Ziehn

List of Publications by Year
in descending order

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45	2,624	304602	243529
papers	citations	22 h-index	44 g-index

57	57	57	3626
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Twenty-first century ocean warming, acidification, deoxygenation, and upper-ocean nutrient and primary production decline from CMIP6 model projections. Biogeosciences, 2020, 17, 3439-3470.	1.3	348
2	Carbonâ€“concentration and carbonâ€“climate feedbacks in CMIP6 models and their comparison to CMIP5 models. Biogeosciences, 2020, 17, 4173-4222.	1.3	255
3	Climate model projections from the Scenario Model Intercomparison ProjectÂ(ScenarioMIP) of CMIP6. Earth System Dynamics, 2021, 12, 253-293.	2.7	236
4	The Australian Earth System Model: ACCESS-ESM1.5. Journal of Southern Hemisphere Earth Systems Science, 2020, 70, 193-214.	0.7	215
5	GUIâ€“HDMR â€“ A software tool for global sensitivity analysis of complex models. Environmental Modelling and Software, 2009, 24, 775-785.	1.9	194
6	The land surface model component of ACCESS: description and impact on the simulated surface climatology. Australian Meteorological Magazine, 2013, 63, 65-82.	0.4	114
7	A global sensitivity study of sulfur chemistry in a premixed methane flame model using HDMR. International Journal of Chemical Kinetics, 2008, 40, 742-753.	1.0	108
8	Constraining human contributions to observed warming since the pre-industrial period. Nature Climate Change, 2021, 11, 207-212.	8.1	108
9	Topâ€“down assessment of the Asian carbon budget since the mid 1990s. Nature Communications, 2016, 7, 10724.	5.8	93
10	The carbon cycle in the Australian Community Climate and Earth System Simulator (ACCESS-ESM1) â€“ Part 1: Model description and pre-industrial simulation. Geoscientific Model Development, 2017, 10, 2567-2590.	1.3	93
11	Is there warming in the pipeline? A multi-model analysis of the Zero Emissions Commitment from CO₂. Biogeosciences, 2020, 17, 2987-3016.	1.3	87
12	The BETHY/JSBACH Carbon Cycle Data Assimilation System: experiences and challenges. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 1414-1426.	1.3	86
13	Improving the predictability of global CO₂assimilation rates under climate change. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	65
14	Global sensitivity analysis of a 3D street canyon modelâ€”Part I: The development of high dimensional model representations. Atmospheric Environment, 2008, 42, 1857-1873.	1.9	56
15	A global sensitivity study of cyclohexane oxidation under low temperature fuel-rich conditions using HDMR methods. Combustion Theory and Modelling, 2009, 13, 589-605.	1.0	47
16	State of the science in reconciling topâ€‐down and bottomâ€‐up approaches for terrestrial CO₂ budget. Global Change Biology, 2020, 26, 1068-1084.	4.2	43
17	The Climate Response to Emissions Reductions Due to COVIDâ€19: Initial Results From CovidMIP. Geophysical Research Letters, 2021, 48, e2020GL091883.	1.5	43
18	An efficient method for global parameter sensitivity analysis and its applications to the Australian community land surface model (CABLE). Agricultural and Forest Meteorology, 2013, 182-183, 292-303.	1.9	41

#	Article	IF	Citations
19	The carbon cycle in the Australian Community Climate andÂEarthÂSystem Simulator (ACCESS-ESM1) â€“ PartÂ2:ÂHistoricalÂsimulations. Geoscientific Model Development, 2017, 10, 2591-2614.	1.3	36
20	On the capability of Monte Carlo and adjoint inversion techniques to derive posterior parameter uncertainties in terrestrial ecosystem models. Global Biogeochemical Cycles, 2012, 26, .	1.9	35
21	Soil carbon sequestration simulated in CMIP6-LUMIP models: implications for climatic mitigation. Environmental Research Letters, 2020, 15, 124061.	2.2	35
22	A multi-model CMIP6-PMIP4 study of Arctic sea ice at 127â€‰ka: sea ice data compilation and model differences. Climate of the Past, 2021, 17, 37-62.	1.3	29
23	Greenhouse gas network design using backward Lagrangian particle dispersion modelling â€“ Part 2: Sensitivity analyses and South African test case. Atmospheric Chemistry and Physics, 2015, 15, 2051-2069.	1.9	25
24	Compatible Fossil Fuel CO2 Emissions in the CMIP6 Earth System Modelsâ€™ Historical and Shared Socioeconomic Pathway Experiments of the Twenty-First Century. Journal of Climate, 2021, 34, 2853-2875.	1.2	23
25	Greenhouse gas network design using backward Lagrangian particle dispersion modelling â€˜ Part 1: Methodology and Australian test case. Atmospheric Chemistry and Physics, 2014, 14, 9363-9378.	1.9	22
26	Quantification and attribution of errors in the simulated annual gross primary production and latent heat fluxes by two global land surface models. Journal of Advances in Modeling Earth Systems, 2016, 8, 1270-1288.	1.3	17
27	Global sensitivity analysis of a 3D street canyon modelâ€”Part II: Application and physical insight using sensitivity analysis. Atmospheric Environment, 2008, 42, 1874-1891.	1.9	13
28	Landâ€“sea temperature contrasts at the Last Interglacial and their impact on the hydrological cycle. Climate of the Past, 2021, 17, 869-885.	1.3	12
29	Investigating spatial differentiation of model parameters in a carbon cycle data assimilation system. Global Biogeochemical Cycles, 2011, 25, n/a-n/a.	1.9	11
30	Designing optimal greenhouse gas monitoring networksÂforÂAustralia. Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 1-15.	0.6	11
31	The Use of Global Sensitivity Methods for the Analysis, Evaluation and Improvement of Complex Modelling Systems. Lecture Notes in Computational Science and Engineering, 2011, , 9-36.	0.1	10
32	The effects of parametric uncertainties in simulations of a reactive plume using a Lagrangian stochastic model. Atmospheric Environment, 2009, 43, 5978-5988.	1.9	9
33	Studying climate stabilization at Paris Agreement levels. Nature Climate Change, 2021, 11, 1010-1013.	8.1	9
34	ACCESS datasets for CMIP6: methodology and idealised experiments. Journal of Southern Hemisphere Earth Systems Science, 2022, 72, 93-116.	0.7	9
35	Development of an ensemble-adjoint optimization approach to derive uncertainties in net carbon fluxes. Geoscientific Model Development, 2011, 4, 1011-1018.	1.3	8
36	Land carbon-concentration and carbon-climate feedbacks are significantly reduced by nitrogen and phosphorus limitation. Environmental Research Letters, 2021, 16, 074043.	2.2	8

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37	An assessment of land-based climate and carbon reversibility in the Australian Community Climate and Earth System Simulator. Mitigation and Adaptation Strategies for Global Change, 2020, 25, 713-731.	1.0	7
38	Limiting the parameter space in the Carbon Cycle Data Assimilation System (CCDAS). Geoscientific Model Development, 2014, 7, 1609-1619.	1.3	5
39	Analysis of CMIP6 atmospheric moisture fluxes and the implications for projections of future change in mean and heavy rainfall. International Journal of Climatology, 2021, 41, E1417.	1.5	5
40	Nonlinear interactions of land carbon cycle feedbacks in Earth System Models. Global Change Biology, 2022, 28, 296-306.	4.2	5
41	Efficient Tools for Global Sensitivity Analysis Based on High-Dimensional Model Representation. , 2017, , 297-318.		4
42	Assessing the Representation of Australian Regional Climate Extremes and Their Associated Atmospheric Circulation in Climate Models. Journal of Climate, 2020, 33, 1227-1245.	1.2	3
43	Marine carbon cycle response to a warmer Southern Ocean: the case of the last interglacial. Climate of the Past, 2022, 18, 507-523.	1.3	3
44	The treatment of uncertainties in reactive pollution dispersion models at urban scales. Faraday Discussions, 2016, 189, 567-587.	1.6	2
45	Assessing the potential for crop albedo enhancement in reducing heatwave frequency, duration, and intensity under future climate change. Weather and Climate Extremes, 2022, 35, 100415.	1.6	2