

# Katrin J Meissner

## List of Publications by Year in descending order

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77  
papers

4,025  
citations

186265  
28  
h-index

128289  
60  
g-index

85  
all docs

85  
docs citations

85  
times ranked

4388  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | The UVic earth system climate model: Model description, climatology, and applications to past, present and future climates. <i>Atmosphere - Ocean</i> , 2001, 39, 361-428.  | 1.6  | 604       |
| 2  | Connections of climate change and variability to large and extreme forest fires in southeast Australia. <i>Communications Earth &amp; Environment</i> , 2021, 2, .  | 6.8  | 341       |
| 3  | The role of land surface dynamics in glacial inception: a study with the UVic Earth System Model. <i>Climate Dynamics</i> , 2003, 21, 515-537.  | 3.8  | 309       |
| 4  | Lifetime of Anthropogenic Climate Change: Millennial Time Scales of Potential CO <sub>2</sub> and Surface Temperature Perturbations. <i>Journal of Climate</i> , 2009, 22, 2501-2511.   | 3.2  | 292       |
| 5  | Natural and anthropogenic climate change: incorporating historical land cover change, vegetation dynamics and the global carbon cycle. <i>Climate Dynamics</i> , 2004, 22, 461-479.   | 3.8  | 218       |
| 6  | Reduction in areal extent of high-latitude wetlands in response to permafrost thaw. <i>Nature Geoscience</i> , 2011, 4, 444-448.  | 12.9 | 188       |
| 7  | Palaeoclimate constraints on the impact of 2 °C anthropogenic warming and beyond. <i>Nature Geoscience</i> , 2018, 11, 474-485.   | 12.9 | 166       |
| 8  | Geochemical proxies of North American freshwater routing during the Younger Dryas cold event. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 6556-6561.  | 7.1  | 162       |
| 9  | Southern Hemisphere westerlies as a driver of the early deglacial atmospheric CO <sub>2</sub> rise. <i>Nature Communications</i> , 2018, 9, 2503.   | 12.8 | 107       |
| 10 | Radiative forcing of climate by historical land cover change. <i>Geophysical Research Letters</i> , 2003, 30, .   | 4.0  | 99        |
| 11 | Terrestrial Carbon Cycle Dynamics under Recent and Future Climate Change. <i>Journal of Climate</i> , 2005, 18, 1609-1628.  | 3.2  | 86        |
| 12 | Poorly ventilated deep ocean at the Last Glacial Maximum inferred from carbon isotopes: A data-model comparison study. <i>Paleoceanography</i> , 2017, 32, 2-17.  | 3.0  | 85        |
| 13 | Atlantic-Pacific seesaw and its role in outgassing CO <sub>2</sub> during Heinrich events. <i>Paleoceanography</i> , 2014, 29, 58-70.   | 3.0  | 81        |
| 14 | Large-scale features of Last Interglacial climate: results from evaluating the <i>CCSM</i> simulations for the Coupled Model Intercomparison Project (CMIP6) Paleoclimate Modeling Intercomparison Project (PMIP4). <i>Climate of the Past</i> , 2021, 17, 63-94. | 3.4  | 76        |
| 15 | Future Projections of Antarctic Ice Shelf Melting Based on CMIP5 Scenarios. <i>Journal of Climate</i> , 2018, 31, 5243-5261.  | 3.2  | 62        |
| 16 | Large-scale stress factors affecting coral reefs: open ocean sea surface temperature and surface seawater aragonite saturation over the next 400 years. <i>Coral Reefs</i> , 2012, 31, 309-319.   | 2.2  | 52        |
| 17 | Ventilation of the North Atlantic Ocean during the Last Glacial Maximum: A comparison between simulated and observed radiocarbon ages. <i>Paleoceanography</i> , 2003, 18, n/a-n/a.   | 3.0  | 51        |
| 18 | Denitrification under glacial and interglacial conditions: A physical approach. <i>Paleoceanography</i> , 2005, 20, n/a-n/a.  | 3.0  | 51        |

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|----|--|------|-----------|
| 19 | Impact of floods versus routing events on the thermohaline circulation. <i>Geophysical Research Letters</i> , 2006, 33, .  | 4.0  | 47        |
| 20 | Mechanisms for an $\sim 1/4$ -kyr climate and sea-level oscillation during marine isotope stage 3. <i>Geophysical Monograph Series</i> , 2007, , 209-246.                          | 0.1  | 47        |
| 21 | Testing the sensitivity of the East Antarctic Ice Sheet to Southern Ocean dynamics: past changes and future implications. <i>Journal of Quaternary Science</i> , 2014, 29, 91-98.  | 2.1  | 46        |
| 22 | Mechanisms of millennial-scale atmospheric CO <sub>2</sub> change in numerical model simulations. <i>Quaternary Science Reviews</i> , 2019, 220, 30-74.                            | 3.0  | 46        |
| 23 | Forcing of the deep ocean circulation in simulations of the Last Glacial Maximum. <i>Paleoceanography</i> , 2002, 17, 5-1-5-15.  | 3.0  | 45        |
| 24 | On the control of glacial–interglacial atmospheric CO <sub>2</sub> variations by the Southern Hemisphere westerlies. <i>Geophysical Research Letters</i> , 2010, 37, .             | 4.0  | 37        |
| 25 | Impact of oceanic circulation changes on atmospheric $^{13}\text{C}$ –CO <sub>2</sub> . <i>Global Biogeochemical Cycles</i> , 2015, 29, 1944-1961.                                 | 4.9  | 35        |
| 26 | The importance of the terrestrial weathering feedback for multimillennial coral reef habitat recovery. <i>Global Biogeochemical Cycles</i> , 2012, 26, .                           | 4.9  | 34        |
| 27 | CO <sub>2</sub> threshold for millennial-scale oscillations in the climate system: implications for global warming scenarios. <i>Climate Dynamics</i> , 2008, 30, 161-174.         | 3.8  | 31        |
| 28 | Intercomparison of Antarctic ice-shelf, ocean, and sea-ice interactions simulated by MetROMS-iceshelf and FESOM 1.4. <i>Geoscientific Model Development</i> , 2018, 11, 1257-1292. | 3.6  | 30        |
| 29 | A multi-model CMIP6-PMIP4 study of Arctic sea ice at 127‰: sea ice data compilation and model differences. <i>Climate of the Past</i> , 2021, 17, 37-62.                           | 3.4  | 29        |
| 30 | Indian Ocean warming modulates global atmospheric circulation trends. <i>Climate Dynamics</i> , 2020, 55, 2053-2073.   | 3.8  | 28        |
| 31 | Younger Dryas: A data to model comparison to constrain the strength of the overturning circulation. <i>Geophysical Research Letters</i> , 2007, 34, .                              | 4.0  | 27        |
| 32 | Climate simulations of the Permian–Triassic boundary: Ocean acidification and the extinction event. <i>Paleoceanography</i> , 2011, 26, .  | 3.0  | 27        |
| 33 | Carbon-nitrogen feedbacks in the UVic ESCM. <i>Geoscientific Model Development</i> , 2012, 5, 1137-1160.   | 3.6  | 27        |
| 34 | The Paleocene–Eocene Thermal Maximum: How much carbon is enough?. <i>Paleoceanography</i> , 2014, 29, 946-963.   | 3.0  | 27        |
| 35 | Sudden spreading of corrosive bottom water during the Palaeocene–Eocene Thermal Maximum. <i>Nature Geoscience</i> , 2015, 8, 458-461.  | 12.9 | 25        |
| 36 | Evaluation of the University of Victoria Earth System Climate Model version 2.10 (UVic ESCM 2.10). <i>Geoscientific Model Development</i> , 2020, 13, 4183-4204.                   | 3.6  | 23        |

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|----|---|------|-----------|
| 37 | Potential increasing dominance of heterotrophy in the global ocean. <i>Environmental Research Letters</i> , 2015, 10, 074009.   | 5.2  | 21        |
| 38 | The dynamics of cold events. <i>Nature Geoscience</i> , 2015, 8, 904-906.   | 12.9 | 20        |
| 39 | Impact of sea ice variability on the oxygen isotope content of seawater under glacial and interglacial conditions. <i>Paleoceanography</i> , 2013, 28, 388-400.                           | 3.0  | 19        |
| 40 | Carbon storage on exposed continental shelves during the glacial-interglacial transition. <i>Geophysical Research Letters</i> , 2006, 33, .   | 4.0  | 18        |
| 41 | Modelling Oxygen Isotopes in the University of Victoria Earth System Climate Model for Pre-industrial and Last Glacial Maximum Conditions. <i>Atmosphere - Ocean</i> , 2012, 50, 447-465. | 1.6  | 18        |
| 42 | Oceanic carbon and water masses during the Mystery Interval: A modelâ€‘data comparison study. <i>Paleoceanography</i> , 2012, 27, .   | 3.0  | 18        |
| 43 | Explicit Planktic Calcifiers in the University of Victoria Earth System Climate Model, Version 2.9. <i>Atmosphere - Ocean</i> , 2015, 53, 332-350.  | 1.6  | 18        |
| 44 | Exploring the oxygen isotope fingerprint of Dansgaard-Oeschger variability and Heinrich events. <i>Quaternary Science Reviews</i> , 2017, 159, 1-14.                                      | 3.0  | 17        |
| 45 | Spurious sea ice formation caused by oscillatory ocean tracer advection schemes. <i>Ocean Modelling</i> , 2017, 116, 108-117.   | 2.4  | 17        |
| 46 | A model study of warming-induced phosphorusâ€‘oxygen feedbacks in open-ocean oxygen minimum zones on millennial timescales. <i>Earth System Dynamics</i> , 2017, 8, 357-367.              | 7.1  | 17        |
| 47 | Drivers of the evolution and amplitude of African Humid Periods. <i>Communications Earth &amp; Environment</i> , 2021, 2, .   | 6.8  | 15        |
| 48 | The dynamics of global change at the Paleocene-Eocene thermal maximum: A data-model comparison. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 3830-3848.                        | 2.5  | 14        |
| 49 | Simulations of Heinrich Events in a coupled ocean-atmosphere-sea ice model. <i>Geophysical Research Letters</i> , 2002, 29, 16-1-16-3.  | 4.0  | 13        |
| 50 | The Australian National Pollutant Inventory Fails to Fulfil Its Legislated Goals. <i>International Journal of Environmental Research and Public Health</i> , 2017, 14, 478.               | 2.6  | 12        |
| 51 | Landâ€‘sea temperature contrasts at the Last Interglacial and their impact on the hydrological cycle. <i>Climate of the Past</i> , 2021, 17, 869-885.                                     | 3.4  | 12        |
| 52 | Projected Changes to Australian Marine Heatwaves. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091323.  | 4.0  | 11        |
| 53 | Surface Melting over Ice Shelves and Ice Sheets as Assessed from Modeled Surface Air Temperatures. <i>Journal of Climate</i> , 2010, 23, 1929-1936.                                       | 3.2  | 10        |
| 54 | Magnitude of the 8.2Â‘ka event freshwater forcing based on stable isotope modelling and comparison to future Greenland melting. <i>Scientific Reports</i> , 2021, 11, 5473.               | 3.3  | 10        |

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|----|---|-----|-----------|
| 55 | Quantification of factors impacting seawater and calcite $\delta^{18}O$ during Heinrich Stadials 1 and 4. <i>Paleoceanography</i> , 2015, 30, 895-911.  | 3.0 | 9         |
| 56 | Phytoplankton calcifiers control nitrate cycling and the pace of transition in warming icehouse and cooling greenhouse climates. <i>Biogeosciences</i> , 2019, 16, 1019-1034.                               | 3.3 | 9         |
| 57 | ACCESS datasets for CMIP6: methodology and idealised experiments. <i>Journal of Southern Hemisphere Earth Systems Science</i> , 2022, 72, 93-116.   | 1.8 | 9         |
| 58 | Primary production sensitivity to phytoplankton light attenuation parameter increases with transient forcing. <i>Biogeosciences</i> , 2017, 14, 4767-4780.  | 3.3 | 8         |
| 59 | Evaluating seasonal sea-ice cover over the Southern Ocean at the Last Glacial Maximum. <i>Climate of the Past</i> , 2022, 18, 845-862.  | 3.4 | 7         |
| 60 | Asymmetric dynamical ocean responses in warming icehouse and cooling greenhouse climates. <i>Environmental Research Letters</i> , 2018, 13, 125011.   | 5.2 | 6         |
| 61 | Competition between ocean carbon pumps in simulations with varying Southern Hemisphere westerly wind forcing. <i>Climate Dynamics</i> , 2016, 46, 3463-3480.  | 3.8 | 5         |
| 62 | Assessing the Spatial Origin of Meltwater Pulse 1A Using Oxygen $\delta^{18}O$ Isotope Fingerprinting. <i>Paleoceanography and Paleoclimatology</i> , 2019, 34, 2031-2046.                                  | 2.9 | 5         |
| 63 | Freshwater forcing control on early-Holocene South American monsoon. <i>Quaternary Science Reviews</i> , 2020, 245, 106498.   | 3.0 | 5         |
| 64 | Modelling the impact of biogenic particle flux intensity and composition on sedimentary Pa/Th. <i>Quaternary Science Reviews</i> , 2020, 240, 106394.   | 3.0 | 5         |
| 65 | Sensitivity of the oceanic carbon reservoir to tropical surface wind stress variations. <i>Geophysical Research Letters</i> , 2013, 40, 2218-2223.  | 4.0 | 4         |
| 66 | Southern Ocean Ecosystem Response to Last Glacial Maximum Boundary Conditions. <i>Paleoceanography and Paleoclimatology</i> , 2021, 36, e2020PA004075.  | 2.9 | 4         |
| 67 | Explicit silicate cycling in the Kiel Marine Biogeochemistry Model version 3 (KMBM3) embedded in the UVic ESCM version 2.9. <i>Geoscientific Model Development</i> , 2021, 14, 7255-7285.                   | 3.6 | 4         |
| 68 | Carbon Dioxide Emission Pathways Avoiding Dangerous Ocean Impacts. <i>Weather, Climate, and Society</i> , 2012, 4, 212-229.   | 1.1 | 3         |
| 69 | Lower oceanic $\delta^{13}C$ during the last interglacial period compared to the Holocene. <i>Climate of the Past</i> , 2021, 17, 507-528.  | 3.4 | 3         |
| 70 | Changes in atmospheric CO <sub>2</sub> concentration over the past two millennia: contribution of climate variability, land-use and Southern Ocean dynamics. <i>Climate Dynamics</i> , 2022, 58, 2957-2979. | 3.8 | 3         |
| 71 | Marine carbon cycle response to a warmer Southern Ocean: the case of the last interglacial. <i>Climate of the Past</i> , 2022, 18, 507-523.   | 3.4 | 3         |
| 72 | Evaluating the Extent of North Atlantic Deep Water and the Mean Atlantic $\delta^{13}C$ From Statistical Reconstructions. <i>Paleoceanography and Paleoclimatology</i> , 2019, 34, 1022-1036.               | 2.9 | 2         |

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|----|---|------|-----------|
| 73 | A multimodel investigation of atmospheric mechanisms for driving Arctic amplification in warmer climates. <i>Journal of Climate</i> , 2021, , 1-55. | 3.2  | 2         |
| 74 | Volcanism caused ancient global warming. <i>Nature</i> , 2017, 548, 531-533.  | 27.8 | 1         |
| 75 | Carbon cycle dynamics during episodes of rapid climate change. <i>Environmental Research Letters</i> , 2021, 16, 040201.                            | 5.2  | 1         |
| 76 | Paleoceanography. <i>Encyclopedia of Earth Sciences Series</i> , 2009, , 690-696.   | 0.1  | 1         |
| 77 | Conclusion Reconstructing and Modeling Past Oceans. <i>Developments in Marine Geology</i> , 2007, 1, 799-811.                                       | 0.4  | 0         |