Nicole van Lipzig

List of Publications by Year
in descending order

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127 papers	6,538 citations	61984 43 h-index	76900 74 g-index
135 all docs	135 docs citations	135 times ranked	7276 citing authors

#	Article	IF	Citations
1	LakeMIP Kivu: evaluating the representation of a large, deep tropical lake by a set of one-dimensional lake models. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 66, 21390.	1.7	88
2	Lack of vegetation exacerbates exposure to dangerous heat in dense settlements in a tropical African city. Environmental Research Letters, 2022, 17, 024004.	5.2	16
3	Including realistic upper atmospheres in a wind-farm gravity-wave model. Wind Energy Science, 2022, 7, 1367-1382.	3.3	3
4	Evaluation of a roughness length parametrization accounting for windâ€“wave alignment in a coupled atmosphereâ€“wave model. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 825-846.	2.7	8
5	Simulating the Impact of Global Reservoir Expansion on the Presentâ€Day Climate. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034485.	3.3	9
6	Can local fieldwork help to represent intra-urban variability of canopy parameters relevant for tropical African climate studies?. Theoretical and Applied Climatology, 2021, 146, 457-474.	2.8	7
7	COSMO-CLM regional climate simulations in the Coordinated Regional Climate Downscaling Experiment (CORDEX) framework: a review. Geoscientific Model Development, 2021, 14, 5125-5154.	3.6	55
8	What is the surface mass balance of Antarctica? An intercomparison of regional climate model estimates. Cryosphere, 2021, 15, 3751-3784.	3.9	55
9	Evaluation framework for sub-daily rainfall extremes simulated by regional climate models. Journal of Applied Meteorology and Climatology, 2021, , .	1.5	2
10	Impact of ocean waves on offshore wind farm power production. Renewable Energy, 2021, 180, 1179-1193.	8.9	12
11	International trade is a key component of climate change adaptation. Nature Climate Change, 2021, 11, 915-916.	18.8	7
12	Future intensification of precipitation and wind gust associated thunderstorms over Lake Victoria. Weather and Climate Extremes, 2021, 34, 100391.	4.1	8
13	A convection-permitting model for the Lake Victoria Basin: evaluation and insight into the mesoscale versus synoptic atmospheric dynamics. Climate Dynamics, 2020, 54, 1779-1799.	3.8	32
14	Consistent scale-dependency of future increases in hourly extreme precipitation in two convection-permitting climate models. Climate Dynamics, 2020, 54, 1267-1280.	3.8	21
15	Modelling and mapping the intra-urban spatial distribution of Plasmodium falciparum parasite rate using very-high-resolution satellite derived indicators. International Journal of Health Geographics, 2020, 19, 38.	2.5	11
16	3D-modelling of Lake Kivu: Horizontal and vertical flow and temperature structure under spatially variable atmospheric forcing. Journal of Great Lakes Research, 2020, 46, 947-960.	1.9	16
17	Global hunger and climate change adaptation through international trade. Nature Climate Change, 2020, 10, 829-835.	18.8	117
18	Importance of Blowing Snow During Cloudy Conditions in East Antarctica: Comparison of Ground-Based and Space-Borne Retrievals Over Ice-Shelf and Mountain Regions. Frontiers in Earth Science, 2020, 8, .	1.8	4

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19	The Spatiotemporal Variability of Cloud Radiative Effects on the Greenland Ice Sheet Surface Mass Balance. Geophysical Research Letters, 2020, 47, e2020GL087315.	4.0	14
20	Global Heat Uptake by Inland Waters. Geophysical Research Letters, 2020, 47, e2020GL087867.	4.0	31
21	The local climate impact of an African city during clearâ€sky conditionsâ€”Implications of the recent urbanization in Kampala (Uganda). International Journal of Climatology, 2020, 40, 4586-4608.	3.5	25
22	Future heating and cooling degree days for Belgium under a high-end climate change scenario. Energy and Buildings, 2020, 216, 109935.	6.7	36
23	Smart renewable electricity portfolios in West Africa. Nature Sustainability, 2020, 3, 710-719.	23.7	66
24	Can we use local climate zones for predicting malaria prevalence across sub-Saharan African cities?. Environmental Research Letters, 2020, 15, 124051.	5.2	16
25	An Evaluation of Surface Climatology in State-of-the-Art Reanalyses over the Antarctic Ice Sheet. Journal of Climate, 2019, 32, 6899-6915.	3.2	71
26	Using Local Climate Zones in Sub-Saharan Africa to tackle urban health issues. Urban Climate, 2019, 27, 227-242.	5.7	61
27	A new roughness length parameterization accounting for windâ€“wave (mis)alignment. Atmospheric Chemistry and Physics, 2019, 19, 6681-6700.	4.9	21
28	The vertical structure of precipitation at two stations in East Antarctica derived from micro rain radars. Cryosphere, 2019, 13, 247-264.	3.9	20
29	Evaluation of CloudSat snowfall rate profiles by a comparison with in situ micro-rain radar observations in East Antarctica. Cryosphere, 2019, 13, 943-954.	3.9	19
30	A New Regional Climate Model for POLARâ€CORDEX: Evaluation of a 30â€Year Hindcast with COSMOâ€CLM² Over Antarctica. Journal of Geophysical Research D: Atmospheres, 2019, 124, 1405-1427.	3.3	24
31	Future Weather Data for Dynamic Building Energy Simulations: Overview of Available Data and Presentation of Newly Derived Data for Belgium. Energy, Environment, and Sustainability, 2019, , 111-138.	1.0	7
32	The influence of convection-permitting regional climate modeling on future projections of extreme precipitation: dependency on topography and timescale. Climate Dynamics, 2019, 52, 5303-5324.	3.8	37
33	Evaluation of the CloudSat surface snowfall product over Antarctica using ground-based precipitation radars. Cryosphere, 2018, 12, 3775-3789.	3.9	37
34	Estimating the effect of rainfall on the surface temperature of a tropical lake. Hydrology and Earth System Sciences, 2018, 22, 6357-6369.	4.9	31
35	Annual impact of wind-farm gravity waves on the Belgianâ€“Dutch offshore wind-farm cluster. Journal of Physics: Conference Series, 2018, 1037, 072006.	0.4	11
36	Modelling the water balance of Lake Victoria (East Africa) â€“ PartÂ1: Observational analysis. Hydrology and Earth System Sciences, 2018, 22, 5509-5525.	4.9	60

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37	Modelling the water balance of Lake Victoria (East Africa) â€“ Part 2: Future projections. Hydrology and Earth System Sciences, 2018, 22, 5527-5549.	4.9	36
38	A new approach for assessing synergies of solar and wind power: implications for West Africa. Environmental Research Letters, 2018, 13, 094009.	5.2	77
39	How does the ice sheet surface mass balance relate to snowfall? Insights from a ground-based precipitation radar in East Antarctica. Cryosphere, 2018, 12, 1987-2003.	3.9	28
40	The CORDEX.be initiative as a foundation for climate services in Belgium. Climate Services, 2018, 11, 49-61.	2.5	44
41	Should future wind speed changes be taken into account in wind farm development?. Environmental Research Letters, 2018, 13, 064012.	5.2	37
42	Multidecadal convection permitting climate simulations over Belgium: sensitivity of future precipitation extremes. Atmospheric Science Letters, 2017, 18, 29-36.	1.9	20
43	Do convection-permitting models improve the representation of the impact of LUC?. Climate Dynamics, 2017, 49, 2749-2763.	3.8	12
44	Heat stress increase under climate change twice as large in cities as in rural areas: A study for a densely populated midlatitude maritime region. Geophysical Research Letters, 2017, 44, 8997-9007.	4.0	125
45	Estimating radar reflectivity - Snowfall rate relationships and their uncertainties over Antarctica by combining disdrometer and radar observations. Atmospheric Research, 2017, 196, 211-223.	4.1	52
46	Early warnings of hazardous thunderstorms over Lake Victoria. Environmental Research Letters, 2017, 12, 074012.	5.2	35
47	Blowing snow detection from ground-based ceilometers: application to East Antarctica. Cryosphere, 2017, 11, 2755-2772.	3.9	31
48	Local impact analysis of climate change on precipitation extremes: are high-resolution climate models needed for realistic simulations?. Hydrology and Earth System Sciences, 2016, 20, 3843-3857.	4.9	53
49	The efficient urban canopy dependency parametrization (SURY) v1.0 for atmospheric modelling: description and application with the COSMO-CLM model for a Belgian summer. Geoscientific Model Development, 2016, 9, 3027-3054.	3.6	96
50	Improving satellite-retrieved surface radiative fluxes in polar regions using a smart sampling approach. Cryosphere, 2016, 10, 2379-2397.	3.9	14
51	Modelling strategies for performing convection-permitting climate simulations. Meteorologische Zeitschrift, 2016, 25, 149-163.	1.0	49
52	Hazardous thunderstorm intensification over Lake Victoria. Nature Communications, 2016, 7, 12786.	12.8	87
53	Evaluation of a windâ€farm parametrization in a regional climate model using large eddy simulations. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 3152-3161.	2.7	15
54	Reconstruction of a flash flood event through a multi-hazard approach: focus on the Rwenzori Mountains, Uganda. Natural Hazards, 2016, 84, 851-876.	3.4	40

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55	Drivers of future changes in East African precipitation. Environmental Research Letters, 2016, 11, 114011.	5.2	66
56	Clouds enhance Greenland ice sheet meltwater runoff. Nature Communications, 2016, 7, 10266.	12.8	164
57	Assessing the current and future urban heat island of Brussels. Urban Climate, 2016, 15, 1-15.	5.7	67
58	Multi-year wind dynamics around Lake Tanganyika. Climate Dynamics, 2016, 47, 3191-3202.	3.8	28
59	How well can a convection-permitting climate model reproduce decadal statistics of precipitation, temperature and cloud characteristics?. Climate Dynamics, 2016, 47, 3043-3061.	3.8	74
60	New insights in the capability of climate models to simulate the impact of LUC based on temperature decomposition of paired site observations. Journal of Geophysical Research D: Atmospheres, 2015, 120, 5417-5436.	3.3	44
61	The Impact of the African Great Lakes on the Regional Climate. Journal of Climate, 2015, 28, 4061-4085.	3.2	156
62	Cloud and precipitation properties from ground-based remote-sensing instruments in East Antarctica. Cryosphere, 2015, 9, 285-304.	3.9	67
63	The impact of impervious water-storage parametrization on urban climate modelling. Urban Climate, 2015, 11, 24-50.	5.7	53
64	A review on regional convectionâ€permitting climate modeling: Demonstrations, prospects, and challenges. Reviews of Geophysics, 2015, 53, 323-361.	23.0	907
65	Assessment of natural climate variability using a weather generator. Climate Dynamics, 2015, 44, 495-508.	3.8	13
66	Understanding the performance of the FLake model over two African Great Lakes. Geoscientific Model Development, 2014, 7, 317-337.	3.6	82
67	An improved algorithm for polar cloud-base detection by ceilometer over the ice sheets. Atmospheric Measurement Techniques, 2014, 7, 1153-1167.	3.1	29
68	The Regional Climate Impact of a Realistic Future Deforestation Scenario in the Congo Basin. Journal of Climate, 2014, 27, 2714-2734.	3.2	70
69	The implementation of biofiltration systems, rainwater tanks and urban irrigation in a single-layer urban canopy model. Urban Climate, 2014, 10, 148-170.	5.7	23
70	Influence of the circumglobal wave-train on European summer precipitation. Climate Dynamics, 2014, 43, 503-515.	3.8	72
71	The role of atmospheric rivers in anomalous snow accumulation in East Antarctica. Geophysical Research Letters, 2014, 41, 6199-6206.	4.0	206
72	How does the spaceborne radar blind zone affect derived surface snowfall statistics in polar regions?. Journal of Geophysical Research D: Atmospheres, 2014, 119, 13,604.	3.3	71

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73	The effect of climate change and emission scenarios on ozone concentrations over Belgium: a high-resolution model study for policy support. Atmospheric Chemistry and Physics, 2014, 14, 5893-5904.	4.9	9
74	High variability of climate and surface mass balance induced by Antarctic ice rises. Journal of Glaciology, 2014, 60, 1101-1110.	2.2	43
75	A height dependent evaluation of wind and temperature over Europe in the CMIP5 Earth System Models. Climate Research, 2014, 61, 41-56.	1.1	7
76	The diurnal evolution of the urban heat island of Paris: a model-based case study during Summer 2006. Atmospheric Chemistry and Physics, 2013, 13, 8525-8541.	4.9	49
77	Simulating the surface energy balance over two contrasting urban environments using the Community Land Model Urban. International Journal of Climatology, 2013, 33, 3182-3205.	3.5	28
78	Meteorological regimes and accumulation patterns at Utsteinen, Dronning Maud Land, East Antarctica: Analysis of two contrasting years. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1700-1715.	3.3	57
79	A new statistical approach to downscale wind speed distributions at a site in northern Europe. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2272-2283.	3.3	21
80	Quantifying successional land cover after clearing of tropical rainforest along forest frontiers in the Congo Basin. Physical Geography, 2013, 34, 417-440.	1.4	12
81	Surface and snowdrift sublimation at Princess Elisabeth station, East Antarctica. Cryosphere, 2012, 6, 841-857.	3.9	32
82	Estimating cloud optical thickness and associated surface UV irradiance from SEVIRI by implementing a semi-analytical cloud retrieval algorithm. Atmospheric Chemistry and Physics, 2012, 12, 7961-7975.	4.9	9
83	Comprehensive Parametrization of Surface-Layer Transfer Coefficients for Use in Atmospheric Numerical Models. Boundary-Layer Meteorology, 2012, 145, 539-550.	2.3	24
84	Validation and comparison of two soilâ€vegetationâ€atmosphere transfer models for tropical Africa. Journal of Geophysical Research, 2012, 117, .	3.3	20
85	Tropospheric clouds in Antarctica. Reviews of Geophysics, 2012, 50, .	23.0	124
86	The role of precipitation size distributions in kmâ€scale NWP simulations of intense precipitation: evaluation of cloud properties and surface precipitation. Quarterly Journal of the Royal Meteorological Society, 2012, 138, 2163-2181.	2.7	9
87	The precipitation response to the desiccation of Lake Chad. Quarterly Journal of the Royal Meteorological Society, 2012, 138, 707-719.	2.7	32
88	Regime-dependent evaluation of accumulated precipitation in COSMO. Theoretical and Applied Climatology, 2012, 108, 39-52.	2.8	9
89	Tracking mesoscale convective systems in the Sahel: relation between cloud parameters and precipitation. International Journal of Climatology, 2012, 32, 1921-1934.	3.5	38
90	Evaluation of moist processes during intense precipitation in km-scale NWP models using remote sensing and in-situ data: Impact of microphysics size distribution assumptions. Atmospheric Research, 2011, 99, 15-38.	4.1	15

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91	Evaluation of microphysical assumptions of the COSMO model using radar and rain gauge observations. Meteorologische Zeitschrift, 2011, 20, 133-144.	1.0	3
92	Long-term evaluation of COSMO forecasting using combined observational data of the GOP period. Meteorologische Zeitschrift, 2011, 20, 119-132.	1.0	28
93	Relations between atmospheric circulation and precipitation in Belgium. Meteorology and Atmospheric Physics, 2011, 111, 27-39.	2.0	29
94	The Impact of Size Distribution Assumptions in a Bulk One-Moment Microphysics Scheme on Simulated Surface Precipitation and Storm Dynamics during a Low-Topped Supercell Case in Belgium. Monthly Weather Review, 2011, 139, 1131-1147.	1.4	29
95	Estimating scaled cloud optical thickness from SEVIRI by implementing a semi-analytical cloud retrieval algorithm. , 2010, , .		2
96	Impact of vegetation changes on a mesoscale convective system in West Africa. Meteorology and Atmospheric Physics, 2010, 107, 109-122.	2.0	10
97	A new method to estimate air-quality levels using a synoptic-regression approach. Part II: Future O3 concentrations. Atmospheric Environment, 2010, 44, 1356-1366.	4.1	10
98	A new method to estimate air-quality levels using a synoptic-regression approach. Part I: Present-day O3 and PM10 analysis. Atmospheric Environment, 2010, 44, 1341-1355.	4.1	37
99	Sensitivity of quantitative precipitation forecast to soil moisture initialization and microphysics parametrization. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 978-996.	2.7	18
100	An analysis of present and future ECHAM5 pressure fields using a classification of circulation patterns. International Journal of Climatology, 2009, 29, 1796-1810.	3.5	106
101	The effect of vegetation changes on precipitation and Mesoscale Convective Systems in the Sahel. Climate Dynamics, 2009, 33, 521-534.	3.8	23
102	The impact of weather and atmospheric circulation on O₃ and PM₁₀ levels at a rural mid-latitude site. Atmospheric Chemistry and Physics, 2009, 9, 2695-2714.	4.9	137
103	Modeling the energy balance in Marseille: Sensitivity to roughness length parameterizations and thermal admittance. Journal of Geophysical Research, 2008, 113, .	3.3	22
104	A first description of the Antarctic Peninsula Coastal Current. Deep-Sea Research Part II: Topical Studies in Oceanography, 2008, 55, 277-293.	1.4	106
105	Variability in the freshwater balance of northern Marguerite Bay, Antarctic Peninsula: Results from Î´18O. Deep-Sea Research Part II: Topical Studies in Oceanography, 2008, 55, 309-322.	1.4	100
106	Characteristics of Summer Airflow over the Antarctic Peninsula in Response to Recent Strengthening of Westerly Circumpolar Winds. Journals of the Atmospheric Sciences, 2008, 65, 1396-1413.	1.7	84
107	The Relationship between the Southern Hemisphere Annular Mode and Antarctic Peninsula Summer Temperatures: Analysis of a High-Resolution Model Climatology. Journal of Climate, 2008, 21, 1649-1668.	3.2	56
108	The Influence of Soil and Vegetation Parameters on Atmospheric Variables Relevant for Convection in the Sahel. Journal of Hydrometeorology, 2008, 9, 461-476.	1.9	9

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109	The Impact of a Changing Southern Hemisphere Annular Mode on Antarctic Peninsula Summer Temperatures. Journal of Climate, 2006, 19, 5388-5404.	3.2	295
110	Model predicted low-level cloud parameters. Atmospheric Research, 2006, 82, 83-101.	4.1	9
111	Model predicted low-level cloud parameters. Atmospheric Research, 2006, 82, 55-82.	4.1	9
112	Changes in Antarctic temperature, wind and precipitation in response to the Antarctic Oscillation. Annals of Glaciology, 2004, 39, 119-126.	1.4	112
113	The near-surface wind field over the Antarctic continent. International Journal of Climatology, 2004, 24, 1973-1982.	3.5	59
114	Precipitation, sublimation, and snow drift in the Antarctic Peninsula region from a regional atmospheric model. Journal of Geophysical Research, 2004, 109, .	3.3	133
115	Model calculations of the age of firn air across the Antarctic continent. Atmospheric Chemistry and Physics, 2004, 4, 1365-1380.	4.9	39
116	Factors Controlling the Near-Surface Wind Field in Antarctica*. Monthly Weather Review, 2003, 131, 733-743.	1.4	109
117	Temperature Sensitivity of the Antarctic Surface Mass Balance in a Regional Atmospheric Climate Model. Journal of Climate, 2002, 15, 2758-2774.	3.2	23
118	The effect of temporal variations in the surface mass balance and temperature-inversion strength on the interpretation of ice-core signals. Journal of Glaciology, 2002, 48, 611-621.	2.2	32
119	Temporal variability of accumulation at Neumayer station, Antarctica, from stake array measurements and a regional atmospheric model. Journal of Glaciology, 2002, 48, 87-94.	2.2	9
120	Momentum Budget of the East Antarctic Atmospheric Boundary Layer: Results of a Regional Climate Model. Journals of the Atmospheric Sciences, 2002, 59, 3117-3129.	1.7	58
121	The spatial and temporal variability of the surface mass balance in Antarctica: results from a regional atmospheric climate model. International Journal of Climatology, 2002, 22, 1197-1217.	3.5	62
122	Impact of polar vortex variability on the wintertime low-level climate of east Antarctica: results of a regional climate model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2002, 54, 485-496.	1.7	7
123	A model study on the relation between atmospheric boundary-layer dynamics and poleward atmospheric moisture transport in Antarctica. Tellus, Series A: Dynamic Meteorology and Oceanography, 2002, 54, 497-511.	1.7	13
124	Evaluation of a Regional Atmospheric Model Using Measurements of Surface Heat Exchange Processes from a Site in Antarctica. Monthly Weather Review, 1999, 127, 1994-2011.	1.4	49
125	Unsteady behaviour of a topography-modulated tripole. Journal of Fluid Mechanics, 1996, 307, 11-41.	3.4	32
126	Response of Wintertime Antarctic Temperatures to the Antarctic Oscillation: Results of a Regional Climate Model. Antarctic Research Series, 0, , 43-58.	0.2	28

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127	Integration Of Convection Permitting Climate Models By Means Of Typical and Extreme Years in Building Energy Simulations In A Context Of Climate Change. , 0, , .		0