Nicole van Lipzig

List of Publications by Year
in descending order

127	6,538	61984	76900
papers	citations	43	74
		h-index	g-index

135	135	135	7276
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A review on regional convection‐permitting climate modeling: Demonstrations, prospects, and challenges. Reviews of Geophysics, 2015, 53, 323-361.	23.0	907
2	The Impact of a Changing Southern Hemisphere Annular Mode on Antarctic Peninsula Summer Temperatures. Journal of Climate, 2006, 19, 5388-5404.	3.2	295
3	The role of atmospheric rivers in anomalous snow accumulation in East Antarctica. Geophysical Research Letters, 2014, 41, 6199-6206.	4.0	206
4	Clouds enhance Greenland ice sheet meltwater runoff. Nature Communications, 2016, 7, 10266.	12.8	164
5	The Impact of the African Great Lakes on the Regional Climate. Journal of Climate, 2015, 28, 4061-4085.	3.2	156
6	The impact of weather and atmospheric circulation on O&lt;sub&gt;3&lt;/sub&gt; and PM&lt;sub&gt;10&lt;/sub&gt; levels at a rural mid-latitude site. Atmospheric Chemistry and Physics, 2009, 9, 2695-2714.	4.9	137
7	Precipitation, sublimation, and snow drift in the Antarctic Peninsula region from a regional atmospheric model. Journal of Geophysical Research, 2004, 109, .	3.3	133
8	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
9	Tropospheric clouds in Antarctica. Reviews of Geophysics, 2012, 50, .	23.0	124
10	Global hunger and climate change adaptation through international trade. Nature Climate Change, 2020, 10, 829-835.	18.8	117
11	Changes in Antarctic temperature, wind and precipitation in response to the Antarctic Oscillation. Annals of Glaciology, 2004, 39, 119-126.	1.4	112
12	Factors Controlling the Near-Surface Wind Field in Antarctica*. Monthly Weather Review, 2003, 131, 733-743.	1.4	109
13	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
14	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
15	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
16	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
17	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
18	Hazardous thunderstorm intensification over Lake Victoria. Nature Communications, 2016, 7, 12786.	12.8	87

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19	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
20	Understanding the performance of the FLake model over two African Great Lakes. Geoscientific Model Development, 2014, 7, 317-337.	3.6	82
21	A new approach for assessing synergies of solar and wind power: implications for West Africa. Environmental Research Letters, 2018, 13, 094009.	5.2	77
22	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
23	Influence of the circumglobal wave-train on European summer precipitation. Climate Dynamics, 2014, 43, 503-515.	3.8	72
24	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
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	The Regional Climate Impact of a Realistic Future Deforestation Scenario in the Congo Basin. Journal of Climate, 2014, 27, 2714-2734.	3.2	70
27	Cloud and precipitation properties from ground-based remote-sensing instruments in East Antarctica. Cryosphere, 2015, 9, 285-304.	3.9	67
28	Assessing the current and future urban heat island of Brussels. Urban Climate, 2016, 15, 1-15.	5.7	67
29	Drivers of future changes in East African precipitation. Environmental Research Letters, 2016, 11, 114011.	5.2	66
30	Smart renewable electricity portfolios in West Africa. Nature Sustainability, 2020, 3, 710-719.	23.7	66
31	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
32	Using Local Climate Zones in Sub-Saharan Africa to tackle urban health issues. Urban Climate, 2019, 27, 227-242.	5.7	61
33	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
34	The near-surface wind field over the Antarctic continent. International Journal of Climatology, 2004, 24, 1973-1982.	3.5	59
35	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
36	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

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37	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
38	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
39	What is the surface mass balance of Antarctica? An intercomparison of regional climate model estimates. Cryosphere, 2021, 15, 3751-3784.	3.9	55
40	The impact of impervious water-storage parametrization on urban climate modelling. Urban Climate, 2015, 11, 24-50.	5.7	53
41	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
42	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
43	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
44	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
45	Modelling strategies for performing convection-permitting climate simulations. Meteorologische Zeitschrift, 2016, 25, 149-163.	1.0	49
46	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
47	The CORDEX.be initiative as a foundation for climate services in Belgium. Climate Services, 2018, 11, 49-61.	2.5	44
48	High variability of climate and surface mass balance induced by Antarctic ice rises. Journal of Glaciology, 2014, 60, 1101-1110.	2.2	43
49	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
50	Model calculations of the age of firn air across the Antarctic continent. Atmospheric Chemistry and Physics, 2004, 4, 1365-1380.	4.9	39
51	Tracking mesoscale convective systems in the Sahel: relation between cloud parameters and precipitation. International Journal of Climatology, 2012, 32, 1921-1934.	3.5	38
52	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
53	Evaluation of the CloudSat surface snowfall product over Antarctica using ground-based precipitation radars. Cryosphere, 2018, 12, 3775-3789.	3.9	37
54	Should future wind speed changes be taken into account in wind farm development?. Environmental Research Letters, 2018, 13, 064012.	5.2	37

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55	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
56	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
57	Future heating and cooling degree days for Belgium under a high-end climate change scenario. Energy and Buildings, 2020, 216, 109935.	6.7	36
58	Early warnings of hazardous thunderstorms over Lake Victoria. Environmental Research Letters, 2017, 12, 074012.	5.2	35
59	Unsteady behaviour of a topography-modulated tripole. Journal of Fluid Mechanics, 1996, 307, 11-41.	3.4	32
60	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
61	Surface and snowdrift sublimation at Princess Elisabeth station, East Antarctica. Cryosphere, 2012, 6, 841-857.	3.9	32
62	The precipitation response to the desiccation of Lake Chad. Quarterly Journal of the Royal Meteorological Society, 2012, 138, 707-719.	2.7	32
63	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
64	Blowing snow detection from ground-based ceilometers: application to East Antarctica. Cryosphere, 2017, 11, 2755-2772.	3.9	31
65	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
66	Global Heat Uptake by Inland Waters. Geophysical Research Letters, 2020, 47, e2020GL087867.	4.0	31
67	Relations between atmospheric circulation and precipitation in Belgium. Meteorology and Atmospheric Physics, 2011, 111, 27-39.	2.0	29
68	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
69	An improved algorithm for polar cloud-base detection by ceilometer over the ice sheets. Atmospheric Measurement Techniques, 2014, 7, 1153-1167.	3.1	29
70	Long-term evaluation of COSMO forecasting using combined observational data of the GOP period. Meteorologische Zeitschrift, 2011, 20, 119-132.	1.0	28
71	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
72	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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73	Multi-year wind dynamics around Lake Tanganyika. Climate Dynamics, 2016, 47, 3191-3202.	3.8	28
74	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
75	The local climate impact of an African city during clear–sky conditions—Implications of the recent urbanization in Kampala (Uganda). International Journal of Climatology, 2020, 40, 4586-4608.	3.5	25
76	Comprehensive Parametrization of Surface-Layer Transfer Coefficients for Use in Atmospheric Numerical Models. Boundary-Layer Meteorology, 2012, 145, 539-550.	2.3	24
77	A New Regional Climate Model for POLAR–CORDEX: Evaluation of a 30–Year Hindcast with COSMO–CLM[2] Over Antarctica. Journal of Geophysical Research D: Atmospheres, 2019, 124, 1405-1427.	3.3	24
78	Temperature Sensitivity of the Antarctic Surface Mass Balance in a Regional Atmospheric Climate Model. Journal of Climate, 2002, 15, 2758-2774.	3.2	23
79	The effect of vegetation changes on precipitation and Mesoscale Convective Systems in the Sahel. Climate Dynamics, 2009, 33, 521-534.	3.8	23
80	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
81	Modeling the energy balance in Marseille: Sensitivity to roughness length parameterizations and thermal admittance. Journal of Geophysical Research, 2008, 113, .	3.3	22
82	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
83	A new roughness length parameterization accounting for wind–wave (mis)alignment. Atmospheric Chemistry and Physics, 2019, 19, 6681-6700.	4.9	21
84	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
85	Validation and comparison of two soil–vegetation–atmosphere transfer models for tropical Africa. Journal of Geophysical Research, 2012, 117, .	3.3	20
86	Multidecadal convection permitting climate simulations over Belgium: sensitivity of future precipitation extremes. Atmospheric Science Letters, 2017, 18, 29-36.	1.9	20
87	The vertical structure of precipitation at two stations in East Antarctica derived from micro rain radars. Cryosphere, 2019, 13, 247-264.	3.9	20
88	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
89	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
90	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

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91	Can we use local climate zones for predicting malaria prevalence across sub-Saharan African cities?. Environmental Research Letters, 2020, 15, 124051.	5.2	16
92	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
93	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
94	Evaluation of a wind‐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
95	Improving satellite-retrieved surface radiative fluxes in polar regions using a smart sampling approach. Cryosphere, 2016, 10, 2379-2397.	3.9	14
96	The Spatiotemporal Variability of Cloud Radiative Effects on the Greenland Ice Sheet Surface Mass Balance. Geophysical Research Letters, 2020, 47, e2020GL087315.	4.0	14
97	Assessment of natural climate variability using a weather generator. Climate Dynamics, 2015, 44, 495-508.	3.8	13
98	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
99	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
100	Do convection-permitting models improve the representation of the impact of LUC?. Climate Dynamics, 2017, 49, 2749-2763.	3.8	12
101	Impact of ocean waves on offshore wind farm power production. Renewable Energy, 2021, 180, 1179-1193.	8.9	12
102	Annual impact of wind-farm gravity waves on the Belgian–Dutch offshore wind-farm cluster. Journal of Physics: Conference Series, 2018, 1037, 072006.	0.4	11
103	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
104	Impact of vegetation changes on a mesoscale convective system in West Africa. Meteorology and Atmospheric Physics, 2010, 107, 109-122.	2.0	10
105	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
106	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
107	Model predicted low-level cloud parameters. Atmospheric Research, 2006, 82, 83-101.	4.1	9
108	Model predicted low-level cloud parameters. Atmospheric Research, 2006, 82, 55-82.	4.1	9

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109	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
110	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
111	The role of precipitation size distributions in km‐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
112	Regime-dependent evaluation of accumulated precipitation in COSMO. Theoretical and Applied Climatology, 2012, 108, 39-52.	2.8	9
113	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
114	Simulating the Impact of Global Reservoir Expansion on the Present‐Day Climate. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034485.	3.3	9
115	Evaluation of a roughness length parametrization accounting for wind–wave alignment in a coupled atmosphere–wave model. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 825-846.	2.7	8
116	Future intensification of precipitation and wind gust associated thunderstorms over Lake Victoria. Weather and Climate Extremes, 2021, 34, 100391.	4.1	8
117	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
118	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
119	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
120	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
121	International trade is a key component of climate change adaptation. Nature Climate Change, 2021, 11, 915-916.	18.8	7
122	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
123	Evaluation of microphysical assumptions of the COSMO model using radar and rain gauge observations. Meteorologische Zeitschrift, 2011, 20, 133-144.	1.0	3
124	Including realistic upper atmospheres in a wind-farm gravity-wave model. Wind Energy Science, 2022, 7, 1367-1382.	3.3	3
125	Estimating scaled cloud optical thickness from SEVIRI by implementing a semi-analytical cloud retrieval algorithm. , 2010, , .		2
126	Evaluation framework for sub-daily rainfall extremes simulated by regional climate models. Journal of Applied Meteorology and Climatology, 2021, , .	1.5	2

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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