

Sensitivity of a regional climate model to the resolution conditions

Climate Dynamics

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Application of the NARCM model to high-resolution aerosol simulations: Case study of Mexico City basin during the Investigaci3n sobre Materia Particulada y Deterioro Atmosf3rico-Aerosol and Visibility Research measurements campaign. Journal of Geophysical Research, 2003, 108, .	3.3	13
2	The Sensitivity of Precipitation and Snowpack Simulations to Model Resolution via Nesting in Regions of Complex Terrain. Journal of Hydrometeorology, 2003, 4, 1025-1043.	0.7	133
3	Distribution-Oriented Verification of Limited-Area Model Forecasts in a Perfect-Model Framework. Monthly Weather Review, 2003, 131, 2492-2509.	0.5	18
4	Testing the downscaling ability of a one-way nested regional climate model in regions of complex topography. Climate Dynamics, 2004, 23, 473-493.	1.7	46
5	Impact of nesting strategies in dynamical downscaling of reanalysis data. Geophysical Research Letters, 2004, 31, .	1.5	40
6	The Effect of Including Biospheric Responses to CO2 on the Impact of Land-Cover Change over Australia. Earth Interactions, 2004, 8, 1-28.	0.7	12
7	Validation of the nesting technique in a regional climate model and sensitivity tests to the resolution of the lateral boundary conditions during summer. Climate Dynamics, 2005, 25, 555-580.	1.7	37
8	Global high resolution versus Limited Area Model climate change projections over Europe: quantifying confidence level from PRUDENCE results. Climate Dynamics, 2005, 25, 653-670.	1.7	191
9	The role of land surface processes in regional climate change: a case study of future land cover change over south western Australia. Meteorology and Atmospheric Physics, 2005, 89, 235-249.	0.9	18
10	Exploring the Sensitivity of the Australian Climate to Regional Land-Cover-Change Scenarios under Increasing CO2 Concentrations and Warmer Temperatures. Earth Interactions, 2006, 10, 1-27.	0.7	18
11	The Impact of Land Cover Change on a Simulated Storm Event in the Sydney Basin. Journal of Applied Meteorology and Climatology, 2006, 45, 283-300.	0.6	39
12	Validation of mesoscale low-level winds obtained by dynamical downscaling of ERA40 over complex terrain. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 58, 445.	0.8	51
14	The Big Brother Experiment and seasonal predictability in the NCEP regional spectral model. Climate Dynamics, 2006, 27, 69-82.	1.7	10
16	A New Spatial-Scale Decomposition of the Brier Score: Application to the Verification of Lightning Probability Forecasts. Monthly Weather Review, 2007, 135, 3052-3069.	0.5	25
17	Relating forest damage data to the wind field from high-resolution RCM simulations: Case study of Anatol striking Sweden in December 1999. Global and Planetary Change, 2007, 57, 161-176.	1.6	8
18	Sensitivity of the MM5 mesoscale model to physical parameterizations for regional climate studies: Annual cycle. Journal of Geophysical Research, 2007, 112, .	3.3	65
19	Statistical and dynamical downscaling of precipitation: An evaluation and comparison of scenarios for the European Alps. Journal of Geophysical Research, 2007, 112, .	3.3	225
20	Does the Danube exist? Versions of reality given by various regional climate models and climatological data sets. Journal of Geophysical Research, 2007, 112, .	3.3	25

#	ARTICLE	IF	CITATIONS
21	Forecast verification of a 3D model of the Mediterranean Sea. The use of discrete wavelet transforms and EOFs in the skill assessment of spatial forecasts. <i>Journal of Marine Systems</i> , 2007, 65, 460-483.	0.9	9
22	The impact of climate change on the risk of forest and grassland fires in Australia. <i>Climatic Change</i> , 2007, 84, 383-401.	1.7	162
23	The impact of lateral boundary data errors on the simulated climate of a nested regional climate model. <i>Climate Dynamics</i> , 2007, 28, 333-350.	1.7	60
24	Impact of the lateral boundary conditions resolution on dynamical downscaling of precipitation in mediterranean spain. <i>Climate Dynamics</i> , 2007, 29, 487-499.	1.7	11
25	Regional climate modelling. <i>Journal of Computational Physics</i> , 2008, 227, 3641-3666.	1.9	228
26	Challenging some tenets of Regional Climate Modelling. <i>Meteorology and Atmospheric Physics</i> , 2008, 100, 3-22.	0.9	184
27	Forecast verification: current status and future directions. <i>Meteorological Applications</i> , 2008, 15, 3-18.	0.9	228
28	Extended Big-Brother experiments: the role of lateral boundary data quality and size of integration domain in regional climate modelling. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2008, 60, 398-410.	0.8	16
29	Spectral nudging in a spectral regional climate model. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2022, 60, 898.	0.8	145
30	Continuous dynamic assimilation of the inner region data in hydrodynamics modelling: optimization approach. <i>Nonlinear Processes in Geophysics</i> , 2008, 15, 815-829.	0.6	1
31	Regional climate model sensitivity to domain size. <i>Climate Dynamics</i> , 2009, 32, 833-854.	1.7	137
32	Impact of climate change on the hydrology of St. Lawrence tributaries. <i>Journal of Hydrology</i> , 2010, 384, 65-83.	2.3	144
33	State-of-the-art with regional climate models. <i>Wiley Interdisciplinary Reviews: Climate Change</i> , 2010, 1, 82-96.	3.6	485
34	The effect of indiscriminate nudging time on large and small scales in regional climate modelling: Application to the Mediterranean basin. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2010, 136, 170-182.	1.0	43
35	Evaluation of the internal variability and estimation of the downscaling ability of the Canadian Regional Climate Model for different domain sizes over the north Atlantic region using the Big-Brother experimental approach. <i>Climate Dynamics</i> , 2011, 36, 1979-2001.	1.7	7
36	Sensitivity to domain size of mid-latitude summer simulations with a regional climate model. <i>Climate Dynamics</i> , 2011, 37, 343-356.	1.7	21
37	Testing WRF capability in simulating the atmospheric water cycle over Equatorial East Africa. <i>Climate Dynamics</i> , 2011, 37, 1357-1379.	1.7	64
38	Simulations of Cyclone Sidr in the Bay of Bengal with a high-resolution model: sensitivity to large-scale boundary forcing. <i>Meteorology and Atmospheric Physics</i> , 2011, 114, 123-137.	0.9	33

#	ARTICLE	IF	CITATIONS
39	The role of the simulation setup in a long-term high-resolution climate change projection for the southern African region. <i>Theoretical and Applied Climatology</i> , 2011, 106, 153-169.	1.3	30
40	Evaluation of WRF Parameterizations for Climate Studies over Southern Spain Using a Multistep Regionalization. <i>Journal of Climate</i> , 2011, 24, 5633-5651.	1.2	109
41	Improving the Temporal Resolution Problem by Localized Gridpoint Nudging in Regional Weather and Climate Models. <i>Monthly Weather Review</i> , 2011, 139, 1292-1304.	0.5	7
42	Investigation of indiscriminate nudging and predictability in a nested quasi-geostrophic model. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2012, 138, 158-169.	1.0	17
43	Regionalizing global climate models. <i>International Journal of Climatology</i> , 2012, 32, 321-337.	1.5	60
44	Uncertainties in simulating regional climate of Southern Africa: sensitivity to physical parameterizations using WRF. <i>Climate Dynamics</i> , 2012, 38, 613-634.	1.7	129
45	Dynamical downscaling of climate change in Central Asia. <i>Global and Planetary Change</i> , 2013, 110, 26-39.	1.6	126
46	Can added value be expected in RCM-simulated large scales?. <i>Climate Dynamics</i> , 2013, 41, 1769-1800.	1.7	68
47	Optimal nudging strategies in regional climate modelling: investigation in a Big-Brother experiment over the European and Mediterranean regions. <i>Climate Dynamics</i> , 2013, 41, 2451-2470.	1.7	51
48	Validating a regional climate model's downscaling ability for East Asian summer monsoonal interannual variability. <i>Climate Dynamics</i> , 2013, 41, 2411-2426.	1.7	39
49	On the role of domain size and resolution in the simulations with the HIRHAM region climate model. <i>Climate Dynamics</i> , 2013, 40, 2903-2918.	1.7	28
50	Downscaling large-scale climate variability using a regional climate model: the case of ENSO over Southern Africa. <i>Climate Dynamics</i> , 2013, 40, 1141-1168.	1.7	30
51	Impact of nesting resolution jump on dynamical downscaling ozone concentrations over Belgium. <i>Atmospheric Environment</i> , 2013, 67, 46-52.	1.9	22
52	Meso- and Fine-Scale Modeling over Complex Terrain: Parameterizations and Applications. <i>Springer Atmospheric Sciences</i> , 2013, , 591-653.	0.4	13
53	Dynamical Downscaling over the Gulf of St. Lawrence using the Canadian Regional Climate Model. <i>Atmosphere - Ocean</i> , 2013, 51, 265-283.	0.6	10
54	Inter-comparison of high-resolution gridded climate data sets and their implication on hydrological model simulation over the Athabasca Watershed, Canada. <i>Hydrological Processes</i> , 2014, 28, 4250-4271.	1.1	78
55	Developing a likely climate scenario from multiple regional climate model simulations with an optimal weighting factor. <i>Climate Dynamics</i> , 2014, 43, 11-35.	1.7	17
56	Lateral boundary conditions for limited area models. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2014, 140, 185-196.	1.0	68

#	ARTICLE	IF	CITATIONS
57	Atmospheric and terrestrial water budgets: sensitivity and performance of configurations and global driving data for long term continental scale WRF simulations. <i>Climate Dynamics</i> , 2014, 42, 2367-2396.	1.7	20
58	Uncertainty in modelling the hydrologic responses of a large watershed: a case study of the Athabasca River basin, Canada. <i>Hydrological Processes</i> , 2014, 28, 4272-4293.	1.1	26
59	weather@home development and validation of a very large ensemble modelling system for probabilistic event attribution. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2015, 141, 1528-1545.	1.0	156
60	Methods for automatized detection of rapid changes in lateral boundary condition fields for NWP limited area models. <i>Geoscientific Model Development</i> , 2015, 8, 2627-2643.	1.3	2
61	Perspectives for Very High-Resolution Climate Simulations with Nested Models: Illustration of Potential in Simulating St. Lawrence River Valley Channelling Winds with the Fifth-Generation Canadian Regional Climate Model. <i>Climate</i> , 2015, 3, 283-307.	1.2	18
62	Systematic large-scale secondary circulations in a regional climate model. <i>Geophysical Research Letters</i> , 2015, 42, 4142-4149.	1.5	19
63	Impact of domain size on the simulation of Indian summer monsoon in RegCM4 using mixed convection scheme and driven by HadGEM2. <i>Climate Dynamics</i> , 2015, 44, 961-975.	1.7	48
64	Global versus local effects on climate change in Asia. <i>Climate Dynamics</i> , 2015, 45, 2151-2164.	1.7	11
66	Evaluation of RegCM4 driven by CAM4 over Southern Africa: mean climatology, interannual variability and daily extremes of wet season temperature and precipitation. <i>Theoretical and Applied Climatology</i> , 2015, 121, 749-766.	1.3	34
67	Impact of Horizontal Resolution on Precipitation in Complex Orography Simulated by the Regional Climate Model RCA3*. <i>Monthly Weather Review</i> , 2015, 143, 3610-3627.	0.5	19
69	A review on regional convection-permitting climate modeling: Demonstrations, prospects, and challenges. <i>Reviews of Geophysics</i> , 2015, 53, 323-361.	9.0	907
70	An improved technique for global solar radiation estimation using numerical weather prediction. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2015, 129, 13-22.	0.6	43
71	On the effect of boundary conditions on the Canadian Regional Climate Model: use of process tendencies. <i>Climate Dynamics</i> , 2015, 45, 2515-2526.	1.7	3
72	Occurrence, durée et intensité des précipitations simulées par deux modèles régionaux canadiens du climat sur la région du Maghreb. <i>Atmosphere - Ocean</i> , 2016, 54, 469-497.	0.6	4
73	Optimizing dynamic downscaling in one-way nesting using a regional ocean model. <i>Ocean Modelling</i> , 2016, 106, 104-120.	1.0	18
74	Intercomparison of statistical and dynamical downscaling models under the EURO- and MED-CORDEX initiative framework: present climate evaluations. <i>Climate Dynamics</i> , 2016, 46, 1301-1329.	1.7	100
75	Sensitivity studies of high-resolution RegCM3 simulations of precipitation over the European Alps: the effect of lateral boundary conditions and domain size. <i>Theoretical and Applied Climatology</i> , 2016, 126, 617-630.	1.3	5
76	Evaluation of the COSMO-CLM high-resolution climate simulations over West Africa. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 1437-1455.	1.2	20

#	ARTICLE	IF	CITATIONS
77	Impacts of climate change on mid-twenty-first century rainfall in Ireland: a high-resolution regional climate model ensemble approach. <i>International Journal of Climatology</i> , 2017, 37, 4347-4363.	1.5	34
78	Impact of Lateral Boundary Errors on the Simulation of Clouds with a Nonhydrostatic Regional Climate Model. <i>Monthly Weather Review</i> , 2017, 145, 5059-5082.	0.5	11
79	CONeP: A cost-effective online nesting procedure for regional atmospheric models. <i>Parallel Computing</i> , 2017, 65, 21-31.	1.3	7
80	How many <sc>RCM</sc> ensemble members provide confidence in the impact of land-use land cover change?. <i>International Journal of Climatology</i> , 2017, 37, 2080-2100.	1.5	33
81	Large-scale secondary circulations in a limited area model – the impact of lateral boundaries and resolution. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2018, 70, 1-15.	0.8	2
82	A classification algorithm for selective dynamical downscaling of precipitation extremes. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 4183-4200.	1.9	11
83	Sensitivity analysis of cumulus parameterizations for an irradiation simulation case. <i>Sustainable Energy Technologies and Assessments</i> , 2018, 28, 1-13.	1.7	1
84	Sensitivity of Limited Area Atmospheric Simulations to Lateral Boundary Conditions in Idealized Experiments. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2694-2707.	1.3	8
85	High-Resolution History: Downscaling China's Climate from the 20CRv2c Reanalysis. <i>Journal of Applied Meteorology and Climatology</i> , 2019, 58, 2141-2157.	0.6	9
86	Regional climate model RCA4 simulations of temperature and precipitation over the Arabian Peninsula: sensitivity to CORDEX domain and lateral boundary conditions. <i>Climate Dynamics</i> , 2019, 53, 7045-7064.	1.7	15
87	Thirty Years of Regional Climate Modeling: Where Are We and Where Are We Going next?. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 5696-5723.	1.2	358
88	Multi-Grid Nesting Ability to Represent Convections Across the Gray Zone. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 4352-4376.	1.3	15
89	The effects of lateral boundary conditions resolution for heat island studies in tropical urban of Kuala Lumpur. <i>IOP Conference Series: Earth and Environmental Science</i> , 2019, 385, 012020.	0.2	0
90	Forecast Verification for S2S Timescales. , 2019, , 337-361.		8
92	Dynamical Downscaling of the Arctic Climate with a Focus on Polar Cyclone Climatology. <i>Atmosphere - Ocean</i> , 2019, 57, 41-60.	0.6	5
93	Added value of very high resolution climate simulations over South Korea using WRF modeling system. <i>Climate Dynamics</i> , 2020, 54, 173-189.	1.7	30
94	Effects and recovery of small-scale fluctuations in one-way nesting for regional ocean modeling. <i>Ocean Modelling</i> , 2020, 145, 101524.	1.0	3
95	Downscaling of seasonal ensemble forecasts to the convection-permitting scale over the Horn of Africa using the <sc>WRF</sc> model. <i>International Journal of Climatology</i> , 2021, 41, E1791.	1.5	1

#	ARTICLE	IF	CITATIONS
96	Downscaling, Regional Models and Impacts. , 2021, , 31-99.		0
97	<scp>Convection</scp>â€permitting modeling with regional climate models: Latest developments and next steps. Wiley Interdisciplinary Reviews: Climate Change, 2021, 12, e731.	3.6	74
98	Climate Downscaling: Assessment of the Added Values Using Regional Climate Models. , 2007, , 15-29.		2
99	Considerations of Domain Size and Large-Scale Driving for Nested Regional Climate Models: Impact on Internal Variability and Ability at Developing Small-Scale Details. , 2012, , 181-199.		31
100	Arctic Regional Climate Models. Atmospheric and Oceanographic Sciences Library, 2012, , 325-356.	0.1	3
101	Effects of Coarsely Resolved and Temporally Interpolated Lateral Boundary Conditions on the Dispersion of Limited-Area Ensemble Forecasts. Monthly Weather Review, 2004, 132, 2358-2377.	0.5	62
102	Benefits of high-resolution downscaling experiments for assessing strong wind hazard at local scales in complex terrain: a case study of Typhoon Songda (2004). Progress in Earth and Planetary Science, 2020, 7, .	1.1	12
103	GCM Bias of the Western Pacific Summer Monsoon and Its Correction by Two-Way Nesting System. Journal of the Meteorological Society of Japan, 2012, 90B, 1-10.	0.7	3
104	Projection of temperature over Korea using an MM5 regional climate simulation. Climate Research, 2009, 40, 241-248.	0.4	20
105	Extended Big-Brother experiments: the role of lateral boundary data quality and size of integration domain in regional climate modelling. Tellus, Series A: Dynamic Meteorology and Oceanography, 2008, 60, 398-410.	0.8	2
107	WRF ensemble dynamical downscaling of precipitation over China using different cumulus convective schemes. Atmospheric Research, 2022, 271, 106116.	1.8	7
108	Precipitation over southern Africa: is there consensus among global climate models (GCMs), regional climate models (RCMs) and observational data?. Geoscientific Model Development, 2022, 15, 3387-3404.	1.3	10
109	Diagnosing whether the increasing horizontal resolution of regional climate model inevitably capable of adding value: investigation for Indian summer monsoon. Climate Dynamics, 2023, 60, 1925-1945.	1.7	10
110	Towards a convectionâ€permitting regional reanalysis over the Italian domain. Meteorological Applications, 2022, 29, .	0.9	4
111	Sensitivity of the Indian Summer monsoon rainfall to land surface schemes and model domain in a regional climate model â€RegCMâ€™. Climate Dynamics, 0, , .	1.7	0