Tanya Spero

List of Publications by Year
in descending order

51 papers	2,877 citations	186209 28 h-index	197736 49 g-index
65 all docs	65 docs citations	65 times ranked	3009 citing authors

#	ARTICLE	IF	CITATIONS
1	Incremental testing of the Community Multiscale Air Quality (CMAQ) modeling system version 4.7. Geoscientific Model Development, 2010, 3, 205-226.	1.3	404
2	WRF-CMAQ two-way coupled system with aerosol feedback: software development and preliminary results. Geoscientific Model Development, 2012, 5, 299-312.	1.3	193
3	Description and evaluation of the Community Multiscale Air Quality (CMAQ) modeling system version 5.1. Geoscientific Model Development, 2017, 10, 1703-1732.	1.3	187
4	Simulation of Meteorological Fields Within and Above Urban and Rural Canopies with a Mesoscale Model. Boundary-Layer Meteorology, 2004, 113, 111-158.	1.2	155
5	Linking the Eta Model with the Community Multiscale Air Quality (CMAQ) Modeling System to Build a National Air Quality Forecasting System. Weather and Forecasting, 2005, 20, 367-384.	0.5	143
6	Examining Interior Grid Nudging Techniques Using Two-Way Nesting in the WRF Model for Regional Climate Modeling. Journal of Climate, 2012, 25, 2805-2823.	1.2	116
7	The Community Multiscale Air Quality (CMAQ) model versions 5.3 and 5.3.1: system updates and evaluation. Geoscientific Model Development, 2021, 14, 2867-2897.	1.3	114
8	Does Nudging Squelch the Extremes in Regional Climate Modeling?. Journal of Climate, 2012, 25, 7046-7066.	1.2	111
9	The Impact of Nudging in the Meteorological Model for Retrospective Air Quality Simulations. Part I: Evaluation against National Observation Networks. Journal of Applied Meteorology and Climatology, 2008, 47, 1853-1867.	0.6	103
10	A detailed evaluation of the Eta-CMAQ forecast model performance for O3, its related precursors, and meteorological parameters during the 2004 ICARTT study. Journal of Geophysical Research, 2007, 112, .	3.3	95
11	Title is missing!. Water, Air and Soil Pollution, 2001, 1, 243-252.	0.8	86
12	Introducing subgrid–scale cloud feedbacks to radiation for regional meteorological and climate modeling. Geophysical Research Letters, 2012, 39, .	1.5	86
13	The geographic distribution and economic value of climate change-related ozone health impacts in the United States in 2030. Journal of the Air and Waste Management Association, 2015, 65, 570-580.	0.9	85
14	Extending the Community Multiscale Air Quality (CMAQ) modeling system to hemispheric scales: overview of process considerations and initial applications. Atmospheric Chemistry and Physics, 2017, 17, 12449-12474.	1.9	83
15	Implementation of an Urban Canopy Parameterization in a Mesoscale Meteorological Model. Journal of Applied Meteorology and Climatology, 2004, 43, 1648-1665.	1.7	79
16	The impact of chemical lateral boundary conditions on CMAQ predictions of tropospheric ozone over the continental United States. Environmental Fluid Mechanics, 2009, 9, 43-58.	0.7	72
17	Using a coupled lake model with WRF for dynamical downscaling. Journal of Geophysical Research D: Atmospheres, 2014, 119, 7193-7208.	1.2	58
18	Simulating the impact of the large-scale circulation on the 2-m temperature and precipitation climatology. Climate Dynamics, 2013, 40, 1903-1920.	1.7	56

#	Article	IF	Citations
19	Increasing the credibility of regional climate simulations by introducing subgrid‐scale cloud‐radiation interactions. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5317-5330.	1.2	50
20	An Observation-Based Investigation of Nudging in WRF for Downscaling Surface Climate Information to 12-km Grid Spacing. Journal of Applied Meteorology and Climatology, 2014, 53, 20-33.	0.6	47
21	Projected Changes in Maternal Heat Exposure During Early Pregnancy and the Associated Congenital Heart Defect Burden in the United States. Journal of the American Heart Association, 2019, 8, e010995.	1.6	41
22	Technical challenges and solutions in representing lakes when using WRF in downscaling applications. Geoscientific Model Development, 2015, 8, 1085-1096.	1.3	39
23	Updates to the Noah Land Surface Model in WRF‐CMAQ to Improve Simulated Meteorology, Air Quality, and Deposition. Journal of Advances in Modeling Earth Systems, 2019, 11, 231-256.	1.3	39
24	Improving the representation of clouds, radiation, and precipitation using spectral nudging in the Weather Research and Forecasting model. Journal of Geophysical Research D: Atmospheres, 2014, 119, 11,682-11,694.	1.2	36
25	The Impact of Nudging in the Meteorological Model for Retrospective Air Quality Simulations. Part II: Evaluating Collocated Meteorological and Air Quality Observations. Journal of Applied Meteorology and Climatology, 2008, 47, 1868-1887.	0.6	35
26	The potential effects of climate change on air quality across the conterminous US at 2030 under three Representative Concentration Pathways. Atmospheric Chemistry and Physics, 2018, 18, 15471-15489.	1.9	33
27	Using National Air Quality Forecast Guidance to Develop Local Air Quality Index Forecasts. Bulletin of the American Meteorological Society, 2010, 91, 313-326.	1.7	31
28	Influence of bromine and iodine chemistry on annual, seasonal, diurnal, and background ozone: CMAQ simulations over the Northern Hemisphere. Atmospheric Environment, 2019, 213, 395-404.	1.9	29
29	The Impact of Incongruous Lake Temperatures on Regional Climate Extremes Downscaled from the CMIP5 Archive Using the WRF Model. Journal of Climate, 2016, 29, 839-853.	1.2	24
30	Diagnostic analysis of ozone concentrations simulated by two regional-scale air quality models. Atmospheric Environment, 2011, 45, 5957-5969.	1.9	23
31	Regional temperature-ozone relationships across the U.S. under multiple climate and emissions scenarios. Journal of the Air and Waste Management Association, 2021, 71, 1251-1264.	0.9	19
32	Evaluating the use of outputs from comprehensive meteorological models in air quality modeling applications. Atmospheric Environment, 2007, 41, 1689-1705.	1.9	18
33	A Maieutic Exploration of Nudging Strategies for Regional Climate Applications Using the WRF Model. Journal of Applied Meteorology and Climatology, 2018, 57, 1883-1906.	0.6	17
34	Improving Surface $PM_{2.5}$ Forecasts in the United States Using an Ensemble of Chemical Transport Model Outputs: 1. Bias Correction With Surface Observations in Nonrural Areas. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032293.	1.2	16
35	Characterizing the impact of projected changes in climate and air quality on human exposures to ozone. Journal of Exposure Science and Environmental Epidemiology, 2017, 27, 260-270.	1.8	15
36	Assessing the Added Value of Dynamical Downscaling Using the Standardized Precipitation Index. Advances in Meteorology, 2016, 2016, 1-14.	0.6	13

#	Article	IF	Citations
37	Examining WRF's Sensitivity to Contemporary Land-Use Datasets across the Contiguous United States Using Dynamical Downscaling. Journal of Applied Meteorology and Climatology, 2018, 57, 2561-2583.	0.6	12
38	Ozone-related asthma emergency department visits in the US in a warming climate. Environmental Research, 2020, 183, 109206.	3.7	12
39	Effects of Mosaic Land Use on Dynamically Downscaled WRF Simulations of the Contiguous United States. Journal of Geophysical Research D: Atmospheres, 2019, 124, 9117-9140.	1.2	10
40	A Heuristic Study on the Importance of Anisotropic Error Distributions in Data Assimilation. Monthly Weather Review, 2001, 129, 766-783.	0.5	9
41	High‐resolution dynamically downscaled rainfall and temperature projections for ecological life zones within Puerto Rico and for the U.S. Virgin Islands. International Journal of Climatology, 2021, 41, 1305-1327.	1.5	8
42	Development and evaluation of an advanced National Air Quality Forecasting Capability using the NOAA Global Forecast System version 16. Geoscientific Model Development, 2022, 15, 3281-3313.	1.3	8
43	Projections of Atmospheric Nitrogen Deposition to the Chesapeake Bay Watershed. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 3307-3326.	1.3	7
44	Evaluation of near surface ozone and particulate matter in air quality simulations driven by dynamically downscaled historical meteorological fields. Atmospheric Environment, 2016, 138, 42-54.	1.9	6
45	Developing PIDF Curves From Dynamically Downscaled WRF Model Fields to Examine Extreme Precipitation Events in Three Eastern U.S. Metropolitan Areas. Journal of Geophysical Research D: Atmospheres, 2019, 124, 13895-13913.	1.2	6
46	Attributing differences in the fate of lateral boundary ozone in AQMEII3 models to physical process representations. Atmospheric Chemistry and Physics, 2018, 18, 17157-17175.	1.9	5
47	Data Availability Principles and Practice. Weather, Climate, and Society, 2020, 12, 647-649.	0.5	5
48	Improving Surface PM$_{2.5}$ Forecasts in the United States Using an Ensemble of Chemical Transport Model Outputs: 2. Bias Correction With Satellite Data for Rural Areas. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	3
49	Projecting changes in extreme rainfall from three tropical cyclones using the design-rainfall approach. Npj Climate and Atmospheric Science, 2021, 4, .	2.6	2
50	Simulation at Neighborhood Scale with Cmaq. , 2004, , 441-449.		0
51	Projecting changes in extreme rainfall from three tropical cyclones using the design-rainfall approach. Nature Climate Change, 2021, 4, 1-8.	8.1	0