L Ruby Leung

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

322 papers	14,820 citations	66 h-index	112 g-index
428 ext. papers	17,855 ext. citations	5.8 avg, IF	6.75 L-index

#	Paper	IF	Citations
322	Hydrologic Implications of Dynamical and Statistical Approaches to Downscaling Climate Model Outputs. *Climatic Change*, **2004**, 62, 189-216	4.5	1227
321	A review on regional convection-permitting climate modeling: Demonstrations, prospects, and challenges. *Reviews of Geophysics*, **2015**, 53, 323-361	23.1	614
320	High Resolution Model Intercomparison Project (HighResMIP v1.0) for CMIP6. *Geoscientific Model Development*, **2016**, 9, 4185-4208	6.3	396
319	Regional Climate Modeling: Progress, Challenges, and Prospects. *Journal of the Meteorological Society of Japan*, **2004**, 82, 1599-1628	2.8	336
318	Mid-Century Ensemble Regional Climate Change Scenarios for the Western United States. *Climatic Change*, **2004**, 62, 75-113	4.5	295
317	The Community Land Model Version 5: Description of New Features, Benchmarking, and Impact of Forcing Uncertainty. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 4245-4287	7.1	288
316	Improving the representation of hydrologic processes in Earth System Models. *Water Resources Research*, **2015**, 51, 5929-5956	5.4	260
315	Sensitivity studies on the impacts of Tibetan Plateau snowpack pollution on the Asian hydrological cycle and monsoon climate. *Atmospheric Chemistry and Physics*, **2011**, 11, 1929-1948	6.8	233
314	Microphysical effects determine macrophysical response for aerosol impacts on deep convective clouds. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, E4581-90	11.5	220
313	Heavy pollution suppresses light rain in China: Observations and modeling. *Journal of Geophysical Research*, **2009**, 114,		219
312	The DOE E3SM Coupled Model Version 1: Overview and Evaluation at Standard Resolution. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 2089-2129	7.1	217
311	Dominant role by vertical wind shear in regulating aerosol effects on deep convective clouds. *Journal of Geophysical Research*, **2009**, 114,		216
310	MIRAGE: Model description and evaluation of aerosols and trace gases. *Journal of Geophysical Research*, **2004**, 109,		216
309	More frequent cloud-free sky and less surface solar radiation in China from 1955 to 2000. *Geophysical Research Letters*, **2006**, 33, n/a-n/a	4.9	215
308	Atmospheric rivers induced heavy precipitation and flooding in the western U.S. simulated by the WRF regional climate model. *Geophysical Research Letters*, **2009**, 36, n/a-n/a	4.9	209
307	The spatial distribution of mineral dust and its shortwave radiative forcing over North Africa: modeling sensitivities to dust emissions and aerosol size treatments. *Atmospheric Chemistry and Physics*, **2010**, 10, 8821-8838	6.8	208
306	Radiative impact of mineral dust on monsoon precipitation variability over West Africa. *Atmospheric Chemistry and Physics*, **2011**, 11, 1879-1893	6.8	182

305	Ocean barrier layers' effect on tropical cyclone intensification. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 14343-7	11.5	158
304	Climate change projections of the North American Regional Climate Change Assessment Program (NARCCAP). *Climatic Change*, **2013**, 120, 965-975	4.5	150
303	Variability of solar radiation under cloud-free skies in China: The role of aerosols. *Geophysical Research Letters*, **2007**, 34,	4.9	149
302	Atmospheric River Tracking Method Intercomparison Project (ARTMIP): project goals and experimental design. *Geoscientific Model Development*, **2018**, 11, 2455-2474	6.3	144
301	North American extreme temperature events and related large scale meteorological patterns: a review of statistical methods, dynamics, modeling, and trends. *Climate Dynamics*, **2016**, 46, 1151-1184	4.2	142
300	Potential regional climate change and implications to U.S. air quality. *Geophysical Research Letters*, **2005**, 32,	4.9	140
299	A Physically Based Runoff Routing Model for Land Surface and Earth System Models. *Journal of Hydrometeorology*, **2013**, 14, 808-828	3.7	137
298	Aerosol impacts on clouds and precipitation in eastern China: Results from bin and bulk microphysics. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		131
297	The Sensitivity of Precipitation and Snowpack Simulations to Model Resolution via Nesting in Regions of Complex Terrain. *Journal of Hydrometeorology*, **2003**, 4, 1025-1043	3.7	119
296	Hydroclimate of the Western United States Based on Observations and Regional Climate Simulation of 1981–2000. Part I: Seasonal Statistics. *Journal of Climate*, **2003**, 16, 1892-1911	4.4	118
295	More frequent intense and long-lived storms dominate the springtime trend in central US rainfall. *Nature Communications*, **2016**, 7, 13429	17.4	114
294	Dynamical and thermodynamical modulations on future changes of landfalling atmospheric rivers over western North America. *Geophysical Research Letters*, **2015**, 42, 7179-7186	4.9	111
293	Modeling the transport and radiative forcing of Taklimakan dust over the Tibetan Plateau: A case study in the summer of 2006. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 797-812	4.4	109
292	Research Needs and Directions of Regional Climate Modeling Using WRF and CCSM. *Bulletin of the American Meteorological Society*, **2006**, 87, 1747-1752	6.1	106
291	Substantial contribution of anthropogenic air pollution to catastrophic floods in Southwest China. *Geophysical Research Letters*, **2015**, 42, 6066-6075	4.9	105
290	Effects of soot-induced snow albedo change on snowpack and hydrological cycle in western United States based on Weather Research and Forecasting chemistry and regional climate simulations. *Journal of Geophysical Research*, **2009**, 114,		105
289	Regional climate model projections for the State of Washington. *Climatic Change*, **2010**, 102, 51-75	4.5	105
288	21st century United States emissions mitigation could increase water stress more than the climate change it is mitigating. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 10635-40	11.5	104

287	A projection of changes in landfalling atmospheric river frequency and extreme precipitation over western North America from the Large Ensemble CESM simulations. *Geophysical Research Letters*, **2016**, 43, 1357-1363	4.9	101
286	Contribution of urbanization to the increase of extreme heat events in an urban agglomeration in east China. *Geophysical Research Letters*, **2017**, 44, 6940-6950	4.9	100
285	Investigating the nexus of climate, energy, water, and land at decision-relevant scales: the Platform for Regional Integrated Modeling and Analysis (PRIMA). *Climatic Change*, **2015**, 129, 573-588	4.5	98
284	Variation of the radiative properties during black carbon aging: theoretical and experimental intercomparison. *Atmospheric Chemistry and Physics*, **2015**, 15, 11967-11980	6.8	98
283	Modeling the Effects of Groundwater-Fed Irrigation on Terrestrial Hydrology over the Conterminous United States. *Journal of Hydrometeorology*, **2014**, 15, 957-972	3.7	98
282	Pacific Northwest Climate Sensitivity Simulated by a Regional Climate Model Driven by a GCM. Part II: 2×CO2Simulations. *Journal of Climate*, **1999**, 12, 2031-2053	4.4	96
281	Evaluating runoff simulations from the Community Land Model 4.0 using observations from flux towers and a mountainous watershed. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		95
280	Increase in the intensity of postmonsoon Bay of Bengal tropical cyclones. *Geophysical Research Letters*, **2014**, 41, 3594-3601	4.9	94
279	A new global river network database for macroscale hydrologic modeling. *Water Resources Research*, **2012**, 48,	5.4	93
278	Modeling the effects of irrigation on land surface fluxes and states over the conterminous United States: Sensitivity to input data and model parameters. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 9789-9803	4.4	91
277	A subgrid parameterization of orographic precipitation. *Theoretical and Applied Climatology*, **1995**, 52, 95-118	3	91
276	Uncertainty in modeling dust mass balance and radiative forcing from size parameterization. *Atmospheric Chemistry and Physics*, **2013**, 13, 10733-10753	6.8	90
275	Uncertainty quantification and parameter tuning in the CAM5 Zhang-McFarlane convection scheme and impact of improved convection on the global circulation and climate. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 395-415	4.4	89
274	Structure and Evolution of Mesoscale Convective Systems: Sensitivity to Cloud Microphysics in Convection-Permitting Simulations Over the United States. *Journal of Advances in Modeling Earth Systems*, **2018**, 10, 1470-1494	7.1	86
273	An Overview of the Atmospheric Component of the Energy Exascale Earth System Model. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 2377-2411	7.1	85
272	Regional modeling of dust mass balance and radiative forcing over East Asia using WRF-Chem. *Aeolian Research*, **2014**, 15, 15-30	3.9	85
271	On an improved sub-regional water resources management representation for integration into earth system models. *Hydrology and Earth System Sciences*, **2013**, 17, 3605-3622	5.5	83
270	Responses and impacts of atmospheric rivers to climate change. *Nature Reviews Earth & Environment*, **2020**, 1, 143-157	30.2	82

269	Urbanization-induced urban heat island and aerosol effects on climate extremes in the Yangtze River Delta region of China. *Atmospheric Chemistry and Physics*, **2017**, 17, 5439-5457	6.8	82
268	Potential aerosol indirect effects on atmospheric circulation and radiative forcing through deep convection. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	82
267	Simulating black carbon and dust and their radiative forcing in seasonal snow: a case study over North China with field campaign measurements. *Atmospheric Chemistry and Physics*, **2014**, 14, 11475-11491	6.8	81
266	Parameterizing Subgrid Orographic Precipitation and Surface Cover in Climate Models. *Monthly Weather Review*, **1998**, 126, 3271-3291	2.4	80
265	Sensitivity of surface flux simulations to hydrologic parameters based on an uncertainty quantification framework applied to the Community Land Model. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		78
264	Aerosol impacts on California winter clouds and precipitation during CalWater 2011: local pollution versus long-range transported dust. *Atmospheric Chemistry and Physics*, **2014**, 14, 81-101	6.8	77
263	The Atmospheric River Tracking Method Intercomparison Project (ARTMIP): Quantifying Uncertainties in Atmospheric River Climatology. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 13777-13802	4.4	75
262	Black carbon radiative forcing over the Tibetan Plateau. *Geophysical Research Letters*, **2014**, 41, 7806-7813	4.9	74
261	A modeling study of irrigation effects on global surface water and groundwater resources under a changing climate. *Journal of Advances in Modeling Earth Systems*, **2015**, 7, 1285-1304	7.1	73
260	Pacific Northwest Climate Sensitivity Simulated by a Regional Climate Model Driven by a GCM. Part I: Control Simulations. *Journal of Climate*, **1999**, 12, 2010-2030	4.4	73
259	POTENTIAL CLIMATE CHANGE IMPACTS ON MOUNTAIN WATERSHEDS IN THE PACIFIC NORTHWEST1. *Journal of the American Water Resources Association*, **1999**, 35, 1463-1471	2.1	71
258	WRF-Chem simulations of aerosols and anthropogenic aerosol radiative forcing in East Asia. *Atmospheric Environment*, **2014**, 92, 250-266	5.3	69
257	Contribution of land-atmosphere coupling to summer climate variability over the contiguous United States. *Journal of Geophysical Research*, **2008**, 113,		66
256	Development of high resolution land surface parameters for the Community Land Model. *Geoscientific Model Development*, **2012**, 5, 1341-1362	6.3	65
255	A case study of urbanization impact on summer precipitation in the Greater Beijing Metropolitan Area: Urban heat island versus aerosol effects. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 10,903-10,914	4.4	64
254	Impact of the Desert dust on the summer monsoon system over Southwestern North America. *Atmospheric Chemistry and Physics*, **2012**, 12, 3717-3731	6.8	64
253	Hydroclimate of the Western United States Based on Observations and Regional Climate Simulation of 1981–2000. Part II: Mesoscale ENSO Anomalies. *Journal of Climate*, **2003**, 16, 1912-1928	4.4	64
252	Sensitivity of U.S. summer precipitation to model resolution and convective parameterizations across gray zone resolutions. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 2714-2733	4.4	63

251	Stochastic parameterization for light absorption by internally mixed BC/dust in snow grains for application to climate models. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 7616-7632	4.4	60
250	Resolution and Dynamical Core Dependence of Atmospheric River Frequency in Global Model Simulations. *Journal of Climate*, **2015**, 28, 2764-2776	4.4	60
249	Uncertainties in Projecting Future Changes in Atmospheric Rivers and Their Impacts on Heavy Precipitation over Europe. *Journal of Climate*, **2016**, 29, 6711-6726	4.4	59
248	A long-term regional simulation and observations of the hydroclimate in China. *Journal of Geophysical Research*, **2007**, 112,		58
247	Climate□Soil□Vegetation control on groundwater table dynamics and its feedbacks in a climate model. *Climate Dynamics*, **2011**, 36, 57-81	4.2	57
246	Evaluating Global Streamflow Simulations by a Physically Based Routing Model Coupled with the Community Land Model. *Journal of Hydrometeorology*, **2015**, 16, 948-971	3.7	55
245	Robust spring drying in the southwestern U.S. and seasonal migration of wet/dry patterns in a warmer climate. *Geophysical Research Letters*, **2014**, 41, 1745-1751	4.9	54
244	Water Balance in the Amazon Basin from a Land Surface Model Ensemble. *Journal of Hydrometeorology*, **2014**, 15, 2586-2614	3.7	54
243	Effects of aerosols on the dynamics and microphysics of squall lines simulated by spectral bin and bulk parameterization schemes. *Journal of Geophysical Research*, **2009**, 114,		54
242	Sources of errors in the simulation of south Asian summer monsoon in the CMIP5 GCMs. *Climate Dynamics*, **2017**, 49, 193-223	4.2	52
241	Characterization of speciated aerosol direct radiative forcing over California. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 2372-2388	4.4	52
240	The DOE E3SM Coupled Model Version 1: Description and Results at High Resolution. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 4095-4146	7.1	50
239	Dynamic Potential Intensity: An improved representation of the ocean's impact on tropical cyclones. *Geophysical Research Letters*, **2015**, 42, 6739-6746	4.9	49
238	Dam Construction in Lancang-Mekong River Basin Could Mitigate Future Flood Risk From Warming-Induced Intensified Rainfall. *Geophysical Research Letters*, **2017**, 44, 10,378-10,386	4.9	48
237	Trans-Pacific transport and evolution of aerosols: evaluation of quasi-global WRF-Chem simulation with multiple observations. *Geoscientific Model Development*, **2016**, 9, 1725-1746	6.3	48
236	Spatiotemporal Characteristics and Large-Scale Environments of Mesoscale Convective Systems East of the Rocky Mountains. *Journal of Climate*, **2019**, 32, 7303-7328	4.4	47
235	Uncertainty Analysis of Runoff Simulations and Parameter Identifiability in the Community Land Model: Evidence from MOPEX Basins. *Journal of Hydrometeorology*, **2013**, 14, 1754-1772	3.7	47
234	One-way coupling of an integrated assessment model and a water resources model: evaluation and implications of future changes over the US Midwest. *Hydrology and Earth System Sciences*, **2013**, 17, 4555-4575	5.5	46

233	The Ongoing Need for High-Resolution Regional Climate Models: Process Understanding and Stakeholder Information. *Bulletin of the American Meteorological Society*, **2020**, 101, E664-E683	6.1	45
232	Increasing Magnitude of Hurricane Rapid Intensification in the Central and Eastern Tropical Atlantic. *Geophysical Research Letters*, **2018**, 45, 4238-4247	4.9	45
231	Substantial ozone enhancement over the North China Plain from increased biogenic emissions due to heat waves and land cover in summer 2017. *Atmospheric Chemistry and Physics*, **2019**, 19, 12195-12207	6.8	43
230	Effects of cloud condensation nuclei and ice nucleating particles on precipitation processes and supercooled liquid in mixed-phase orographic clouds. *Atmospheric Chemistry and Physics*, **2017**, 17, 1017-1035	6.8	42
229	Exploring a Multiresolution Approach Using AMIP Simulations. *Journal of Climate*, **2015**, 28, 5549-5574	4.4	42
228	Seasonally dependent responses of subtropical highs and tropical rainfall to anthropogenic warming. *Nature Climate Change*, **2018**, 8, 787-792	21.4	41
227	Application of a subgrid orographic precipitation/surface hydrology scheme to a mountain watershed. *Journal of Geophysical Research*, **1996**, 101, 12803-12817		41
226	Significant impacts of irrigation water sources and methods on modeling irrigation effects in the ACME Land Model. *Journal of Advances in Modeling Earth Systems*, **2017**, 9, 1665-1683	7.1	40
225	Local finite-amplitude wave activity as an objective diagnostic of midlatitude extreme weather. *Geophysical Research Letters*, **2015**, 42, 10,952	4.9	40
224	Observed Scaling in Clouds and Precipitation and Scale Incognizance in Regional to Global Atmospheric Models. *Journal of Climate*, **2013**, 26, 9313-9333	4.4	40
223	Dust dominates high-altitude snow darkening and melt over high-mountain Asia. *Nature Climate Change*, **2020**, 10, 1045-1051	21.4	40
222	The Role of Climate Covariability on Crop Yields in the Conterminous United States. *Scientific Reports*, **2016**, 6, 33160	4.9	40
221	Sensitivity of global terrestrial gross primary production to hydrologic states simulated by the Community Land Model using two runoff parameterizations. *Journal of Advances in Modeling Earth Systems*, **2014**, 6, 658-679	7.1	39
220	Implementing and Evaluating Variable Soil Thickness in the Community Land Model, Version 4.5 (CLM4.5). *Journal of Climate*, **2016**, 29, 3441-3461	4.4	36
219	PhysicsDynamics Coupling in Weather, Climate, and Earth System Models: Challenges and Recent Progress. *Monthly Weather Review*, **2018**, 146, 3505-3544	2.4	36
218	Toward the Dynamical Convergence on the Jet Stream in Aquaplanet AGCMs. *Journal of Climate*, **2015**, 28, 6763-6782	4.4	35
217	North American extreme precipitation events and related large-scale meteorological patterns: a review of statistical methods, dynamics, modeling, and trends. *Climate Dynamics*, **2019**, 53, 6835-6875	4.2	35
216	Hydrological Drought in the Anthropocene: Impacts of Local Water Extraction and Reservoir Regulation in the U.S.. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 11,313-11,328	4.4	35

215	Seesaw haze pollution in North China modulated by the sub-seasonal variability of atmospheric circulation. *Atmospheric Chemistry and Physics*, **2019**, 19, 565-576	6.8	34
214	Next-Generation Intensity-Duration-Frequency Curves for Hydrologic Design in Snow-Dominated Environments. *Water Resources Research*, **2018**, 54, 1093-1108	5.4	34
213	Environments of Long-Lived Mesoscale Convective Systems Over the Central United States in Convection Permitting Climate Simulations. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 13,288	4.4	34
212	Error Characteristics of Two Grid Refinement Approaches in Aquaplanet Simulations: MPAS-A and WRF. *Monthly Weather Review*, **2013**, 141, 3022-3036	2.4	34
211	Parametric Sensitivity and Uncertainty Quantification in the Version 1 of E3SM Atmosphere Model Based on Short Perturbed Parameter Ensemble Simulations. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 13,046	4.4	34
210	Contrasting Spring and Summer Large-Scale Environments Associated with Mesoscale Convective Systems over the U.S. Great Plains. *Journal of Climate*, **2019**, 32, 6749-6767	4.4	33
209	A Hierarchical Evaluation of Regional Climate Simulations. *Eos*, **2013**, 94, 297-298	1.5	33
208	Modeling surface water dynamics in the Amazon Basin using MOSART-Inundation-v1.0: Impacts of geomorphological parameters and river flow representation. *Geoscientific Model Development*, **2017**, 10, 1233-1259	6.3	33
207	Impacts of compound extreme weather events on ozone in the present and future. *Atmospheric Chemistry and Physics*, **2018**, 18, 9861-9877	6.8	33
206	The Dependence of ITCZ Structure on Model Resolution and Dynamical Core in Aquaplanet Simulations. *Journal of Climate*, **2014**, 27, 2375-2385	4.4	32
205	Investigation of aerosol indirect effects using a cumulus microphysics parameterization in a regional climate model. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 906-926	4.4	32
204	Atmospheric Moisture Budget and Spatial Resolution Dependence of Precipitation Extremes in Aquaplanet Simulations. *Journal of Climate*, **2014**, 27, 3565-3581	4.4	31
203	Understanding Flood Seasonality and Its Temporal Shifts within the Contiguous United States. *Journal of Hydrometeorology*, **2017**, 18, 1997-2009	3.7	29
202	Modeling the Impacts of Urbanization on Summer Thermal Comfort: The Role of Urban Land Use and Anthropogenic Heat. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 6681-6697	4.4	29
201	Persistent cold air outbreaks over North America in a warming climate. *Environmental Research Letters*, **2015**, 10, 044001	6.2	29
200	Climate change impacts on wind power generation. *Nature Reviews Earth & Environment*, **2020**, 1, 627-643	30.2	29
199	Roles of SST versus Internal Atmospheric Variability in Winter Extreme Precipitation Variability along the U.S. West Coast. *Journal of Climate*, **2018**, 31, 8039-8058	4.4	28
198	Effects of spatially distributed sectoral water management on the redistribution of water resources in an integrated water model. *Water Resources Research*, **2017**, 53, 4253-4270	5.4	27

197	Aerosols in the E3SM Version 1: New Developments and Their Impacts on Radiative Forcing. *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2019MS001851	7.1	27
196	Predictability of Extreme Precipitation in Western U.S. Watersheds Based on Atmospheric River Occurrence, Intensity, and Duration. *Geophysical Research Letters*, **2018**, 45, 11,693	4.9	27
195	Modeling the contributions of Northern Hemisphere dust sources to dust outflow from East Asia. *Atmospheric Environment*, **2019**, 202, 234-243	5.3	26
194	BioEarth: Envisioning and developing a new regional earth system model to inform natural and agricultural resource management. *Climatic Change*, **2015**, 129, 555-571	4.5	26
193	Urbanization Effect on Winter Haze in the Yangtze River Delta Region of China. *Geophysical Research Letters*, **2018**, 45, 6710-6718	4.9	26
192	Dominating Controls for Wetter South Asian Summer Monsoon in the Twenty-First Century. *Journal of Climate*, **2015**, 28, 3400-3419	4.4	25
191	Impact of Atmospheric Rivers on Surface Hydrological Processes in Western U.S. Watersheds. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 8896-8916	4.4	25
190	Links between flood frequency and annual water balance behaviors: A basis for similarity and regionalization. *Water Resources Research*, **2014**, 50, 937-953	5.4	25
189	Cyclone-cyclone interactions through the ocean pathway. *Geophysical Research Letters*, **2014**, 41, 6855-6862	4.9	25
188	Future Changes in Seasonality of the North Pacific and North Atlantic Subtropical Highs. *Geophysical Research Letters*, **2018**, 45, 11,959	4.9	25
187	Mechanisms Contributing to Suppressed Precipitation in Mt. Hua of Central China. Part I: Mountain Valley Circulation. *Journals of the Atmospheric Sciences*, **2016**, 73, 1351-1366	2.1	24
186	Probable Maximum Precipitation in the U.S. Pacific Northwest in a Changing Climate. *Water Resources Research*, **2017**, 53, 9600-9622	5.4	24
185	The DOE E3SM v1.1 Biogeochemistry Configuration: Description and Simulated Ecosystem-Climate Responses to Historical Changes in Forcing. *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2019MS001766	7.1	24
184	The robust dynamical contribution to precipitation extremes in idealized warming simulations across model resolutions. *Geophysical Research Letters*, **2014**, 41, 2971-2978	4.9	23
183	A subbasin-based framework to represent land surface processes in an Earth system model. *Geoscientific Model Development*, **2014**, 7, 947-963	6.3	23
182	Comparison of dynamically and statistically downscaled seasonal climate forecasts for the cold season over the United States. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		23
181	Impact of numerical choices on water conservation in the E3SM Atmosphere Model version 1 (EAMv1). *Geoscientific Model Development*, **2018**, 11, 1971-1988	6.3	23
180	A New Global Storage-Area-Depth Data Set for Modeling Reservoirs in Land Surface and Earth System Models. *Water Resources Research*, **2018**, 54, 10,372	5.4	23

179	Influence of Atmospheric Rivers on Mountain Snowpack in the Western United States. *Journal of Climate*, **2018**, 31, 9921-9940	4.4	22
178	Hydroclimatic Variability and Predictability: A Survey of Recent Research. *Hydrology and Earth System Sciences*, **2017**, 21, 3777-3798	5.5	21
177	Simulating county-level crop yields in the Conterminous United States using the Community Land Model: The effects of optimizing irrigation and fertilization. *Journal of Advances in Modeling Earth Systems*, **2016**, 8, 1912-1931	7.1	21
176	Development and Evaluation of an Ensemble-Based Data Assimilation System for Regional Reanalysis Over the Tibetan Plateau and Surrounding Regions. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 2503-2522	7.1	21
175	Nonlinear Filtering Effects of Reservoirs on Flood Frequency Curves at the Regional Scale. *Water Resources Research*, **2017**, 53, 8277-8292	5.4	21
174	Modeling stream temperature in the Anthropocene: An earth system modeling approach. *Journal of Advances in Modeling Earth Systems*, **2015**, 7, 1661-1679	7.1	21
173	Assessing the relative influence of surface soil moisture and ENSO SST on precipitation predictability over the contiguous United States. *Geophysical Research Letters*, **2015**, 42, 5005-5013	4.9	21
172	Oceanic control of Northeast Pacific hurricane activity at interannual timescales. *Environmental Research Letters*, **2013**, 8, 044009	6.2	21
171	Estimating the radiative forcing of carbonaceous aerosols over California based on satellite and ground observations. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 11,148-11,160	4.4	21
170	Sensitivity of Surface Temperature to Oceanic Forcing via q-Flux Green Function Experiments. Part I: Linear Response Function. *Journal of Climate*, **2018**, 31, 3625-3641	4.4	19
169	Inverse modeling of hydrologic parameters using surface flux and runoff observations in the Community Land Model. *Hydrology and Earth System Sciences*, **2013**, 17, 4995-5011	5.5	19
168	Simulating 3-D radiative transfer effects over the Sierra Nevada Mountains using WRF. *Atmospheric Chemistry and Physics*, **2012**, 12, 9965-9976	6.8	19
167	Sources and pathways of the upscale effects on the Southern Hemisphere jet in MPAS-CAM4 variable-resolution simulations. *Journal of Advances in Modeling Earth Systems*, **2016**, 8, 1786-1805	7.1	19
166	Modeling Sediment Yield in Land Surface and Earth System Models: Model Comparison, Development, and Evaluation. *Journal of Advances in Modeling Earth Systems*, **2018**, 10, 2192-2213	7.1	19
165	Aerosol and Urban Land Use Effect on Rainfall Around Cities in Indo-Gangetic Basin From Observations and Cloud Resolving Model Simulations. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 3645-3667	4.4	19
164	Mechanisms for an Amplified Precipitation Seasonal Cycle in the U.S. West Coast under Global Warming. *Journal of Climate*, **2019**, 32, 4681-4698	4.4	18
163	Regional Snow Parameters Estimation for Large-Domain Hydrological Applications in the Western United States. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 5296-5313	4.4	18
162	Exploring the impacts of physics and resolution on aqua-planet simulations from a nonhydrostatic global variable-resolution modeling framework. *Journal of Advances in Modeling Earth Systems*, **2016**, 8, 1751-1768	7.1	18

161	Numerical issues associated with compensating and competing processes in climate models: an example from ECHAM-HAM. *Geoscientific Model Development*, **2013**, 6, 861-874	6.3	18
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