Hyungjun Kim

List of Publications by Citations

95 papers	6,129 citations	31 h-index	78 g-index
118 ext. papers	7,492 ext. citations	7.5 avg, IF	5.73 L-index

#	Paper	IF	Citations
95	Global flood risk under climate change. *Nature Climate Change*, **2013**, 3, 816-821	21.4	1340
94	Multimodel assessment of water scarcity under climate change. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 3245-50	11.5	978
93	Hydrological droughts in the 21st century, hotspots and uncertainties from a global multimodel ensemble experiment. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 3262-7	11.5	470
92	A physically based description of floodplain inundation dynamics in a global river routing model. *Water Resources Research*, **2011**, 47,	5.4	399
91	First look at changes in flood hazard in the Inter-Sectoral Impact Model Intercomparison Project ensemble. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 3257-61	11.5	203
90	Incorporating Anthropogenic Water Regulation Modules into a Land Surface Model. *Journal of Hydrometeorology*, **2012**, 13, 255-269	3.7	190
89	Water scarcity hotspots travel downstream due to human interventions in the 20th and 21st century. *Nature Communications*, **2017**, 8, 15697	17.4	177
88	State of the Climate in 2013. *Bulletin of the American Meteorological Society*, **2014**, 95, S1-S279	6.1	128
87	Role of rivers in the seasonal variations of terrestrial water storage over global basins. *Geophysical Research Letters*, **2009**, 36,	4.9	126
86	Multisectoral climate impact hotspots in a warming world. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 3233-8	11.5	120
85	State of the Climate in 2015. *Bulletin of the American Meteorological Society*, **2016**, 97, Si-S275	6.1	114
84	State of the Climate in 2016. *Bulletin of the American Meteorological Society*, **2017**, 98, Si-S280	6.1	112
83	Variations of global and continental water balance components as impacted by climate forcing uncertainty and human water use. *Hydrology and Earth System Sciences*, **2016**, 20, 2877-2898	5.5	107
82	ORCHIDEE-MICT (v8.4.1), a land surface model for the high latitudes: model description and validation. *Geoscientific Model Development*, **2018**, 11, 121-163	6.3	100
81	LS3MIP (v1.0) contribution to CMIP6: the Land Surface, Snow and Soil moisture Model Intercomparison Project aims, setup and expected outcome. *Geoscientific Model Development*, **2016**, 9, 2809-2832	6.3	98
80	Observed controls on resilience of groundwater to climate variability in sub-Saharan Africa. *Nature*, **2019**, 572, 230-234	50.4	92
79	State-of-the-art global models underestimate impacts from climate extremes. *Nature Communications*, **2019**, 10, 1005	17.4	92

78	Global terrestrial water storage and drought severity under climate change. *Nature Climate Change*, **2021**, 11, 226-233	21.4	85
77	The critical role of the routing scheme in simulating peak river discharge in global hydrological models. *Environmental Research Letters*, **2017**, 12, 075003	6.2	73
76	Analysis of the water level dynamics simulated by a global river model: A case study in the Amazon River. *Water Resources Research*, **2012**, 48,	5.4	73
75	Recent progresses in incorporating human land□water management into global land surface models toward their integration into Earth system models. *Wiley Interdisciplinary Reviews: Water*, **2016**, 3, 548-574	5.7	72
74	ESM-SnowMIP: assessing snow models and quantifying snow-related climate feedbacks. *Geoscientific Model Development*, **2018**, 11, 5027-5049	6.3	62
73	Worldwide evaluation of mean and extreme runoff from six global-scale hydrological models that account for human impacts. *Environmental Research Letters*, **2018**, 13, 065015	6.2	59
72	Observed changes in dry-season water availability attributed to human-induced climate change. *Nature Geoscience*, **2020**, 13, 477-481	18.3	54
71	Abrupt shift to hotter and drier climate over inner East Asia beyond the tipping point. *Science*, **2020**, 370, 1095-1099	33.3	54
70	Dynamics of surface water storage in the Amazon inferred from measurements of inter-satellite distance change. *Geophysical Research Letters*, **2009**, 36,	4.9	52
69	Evapotranspiration seasonality across the Amazon Basin. *Earth System Dynamics*, **2017**, 8, 439-454	4.8	46
68	Event-to-event intensification of the hydrologic cycle from 1.5 □C to a 2 □C warmer world. *Scientific Reports*, **2019**, 9, 3483	4.9	42
67	Estimating monthly total nitrogen concentration in streams by using artificial neural network. *Journal of Environmental Management*, **2011**, 92, 172-7	7.9	42
66	Impact of Pacific and Atlantic sea surface temperatures on interannual and decadal variations of GRACE land water storage in tropical South America. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 10,811-10,829	4.4	32
65	Relative contributions of weather systems to mean and extreme global precipitation. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 152-167	4.4	31
64	Impacts of spatial resolution and representation of flow connectivity on large-scale simulation of floods. *Hydrology and Earth System Sciences*, **2017**, 21, 5143-5163	5.5	27
63	Evapotranspiration simulations in ISIMIP2a□Evaluation of spatio-temporal characteristics with a comprehensive ensemble of independent datasets. *Environmental Research Letters*, **2018**, 13, 075001	6.2	26
62	Disruption of hydroecological equilibrium in southwest Amazon mediated by drought. *Geophysical Research Letters*, **2015**, 42, 7546-7553	4.9	25
61	Movement of Amazon surface water from time-variable satellite gravity measurements and implications for water cycle parameters in land surface models. *Geochemistry, Geophysics, Geosystems*, **2010**, 11,	3.6	23

60	On the use of the GRACE normal equation of inter-satellite tracking data for estimation of soil moisture and groundwater in Australia. *Hydrology and Earth System Sciences*, **2018**, 22, 1811-1829	5.5	20
59	The Diurnal Cycle of Precipitation in Regional Spectral Model Simulations over West Africa: Sensitivities to Resolution and Cumulus Schemes. *Weather and Forecasting*, **2015**, 30, 424-445	2.1	18
58	Biogeophysical Impacts of Land-Use Change on Climate Extremes in Low-Emission Scenarios: Results From HAPPI-Land. *Earth's Future*, **2018**, 6, 396-409	7.9	18
57	Evaluation of MERIS Chlorophyll-a Retrieval Processors in a Complex Turbid Lake Kasumigaura over a 10-Year Mission. *Remote Sensing*, **2017**, 9, 1022	5	18
56	Meteorological and evaluation datasets for snow modelling at 10 reference sites: description of in situ and bias-corrected reanalysis data. *Earth System Science Data*, **2019**, 11, 865-880	10.5	18
55	The PROFOUND Database for evaluating vegetation models and simulating climate impacts on European forests. *Earth System Science Data*, **2020**, 12, 1295-1320	10.5	18
54	Assessment of Chlorophyll-a Algorithms Considering Different Trophic Statuses and Optimal Bands. *Sensors*, **2017**, 17,	3.8	16
53	Multi-Algorithm Indices and Look-Up Table for Chlorophyll-a Retrieval in Highly Turbid Water Bodies Using Multispectral Data. *Remote Sensing*, **2017**, 9, 556	5	14
52	Which weather systems are projected to cause future changes in mean and extreme precipitation in CMIP5 simulations?. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 10,522-10,537	4.4	14
51	Intensification of the East Asian summer monsoon lifecycle based on observation and CMIP6. *Environmental Research Letters*, **2020**, 15, 0940b9	6.2	14
50	Modeling Surface Runoff and Water Fluxes over Contrasted Soils in the Pastoral Sahel: Evaluation of the ALMIP2 Land Surface Models over the Gourma Region in Mali. *Journal of Hydrometeorology*, **2017**, 18, 1847-1866	3.7	13
49	Water Governance Contribution to Water and Sanitation Access Equality in Developing Countries. *Water Resources Research*, **2020**, 56, e2019WR025330	5.4	13
48	Scientific and Human Errors in a Snow Model Intercomparison. *Bulletin of the American Meteorological Society*, **2021**, 102, E61-E79	6.1	13
47	Vapor Pressure Deficit and Sunlight Explain Seasonality of Leaf Phenology and Photosynthesis Across Amazonian Evergreen Broadleaved Forest. *Global Biogeochemical Cycles*, **2021**, 35, e2020GB006893	5.9	12
46	Streamflows over a West African Basin from the ALMIP2 Model Ensemble. *Journal of Hydrometeorology*, **2017**, 18, 1831-1845	3.7	11
45	Climatological characteristics of fronts in the western North Pacific based on surface weather charts. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 9400-9418	4.4	11
44	GMD perspective: The quest to improve the evaluation of groundwater representation in continental- to global-scale models. *Geoscientific Model Development*, **2021**, 14, 7545-7571	6.3	9
43	Impact of climate forcing uncertainty and human water use on global and continental water balance components. *Proceedings of the International Association of Hydrological Sciences*,374, 53-62		9

42	Sensitivity of Global Hydrological Simulations to Groundwater Capillary Flux Parameterizations. *Water Resources Research*, **2019**, 55, 402-425	5.4	9
41	Evaluation of ORCHIDEE-MICT-simulated soil moisture over China and impacts of different atmospheric forcing data. *Hydrology and Earth System Sciences*, **2018**, 22, 5463-5484	5.5	9
40	Development of a Global River Water Temperature Model Considering Fluvial Dynamics and Seasonal Freeze-Thaw Cycle. *Water Resources Research*, **2019**, 55, 1366-1383	5.4	7
39	Improvement of the Irrigation Scheme in the ORCHIDEE Land Surface Model and Impacts of Irrigation on Regional Water Budgets Over China. *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2019MS001770	7.1	7
38	Chronological Development of Terrestrial Mean Precipitation. *Bulletin of the American Meteorological Society*, **2017**, 98, 2411-2428	6.1	7
37	A study on the relationship between Atlantic sea surface temperature and Amazonian greenness. *Ecological Informatics*, **2010**, 5, 367-378	4.2	6
36	Emergence of significant soil moisture depletion in the near future. *Environmental Research Letters*, **2020**, 15, 124048	6.2	6
35	Warm Season Satellite Precipitation Biases for Different Cloud Types Over Western North Pacific. *IEEE Geoscience and Remote Sensing Letters*, **2018**, 15, 808-812	4.1	5
34	Observed influence of anthropogenic climate change on tropical cyclone heavy rainfall. *Nature Climate Change*, **2022**, 12, 436-440	21.4	5
33	Feasibility Study of the Reconstruction of Historical Weather with Data Assimilation. *Monthly Weather Review*, **2017**, 145, 3563-3580	2.4	4
32	Global aridity changes due to differences in surface energy and water balance between 1.5 ℃ and 2 ℃ warming. *Environmental Research Letters*, **2020**, 15, 0940a7	6.2	4
31	The Land Surface, Snow and Soil moisture Model Intercomparison Program (LS3MIP): aims, set-up and expected outcome **2016**,		4
30	Seasonal Flooding Causes Intensification of the River Breeze in the Central Amazon. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 5178-5197	4.4	3
29	Difference in the Priestley□aylor coefficients at two different heights of a tall micrometeorological tower. *Agricultural and Forest Meteorology*, **2013**, 180, 97-101	5.8	3
28	ORCHIDEE-MICT (revision 4126), a land surface model for the high-latitudes: model description and validation **2017**,		3
27	Impacts of Anthropogenic Heat and Building Height on Urban Precipitation Over the Seoul Metropolitan area in Regional Climate Modeling. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2021JD035348	4.4	3
26	HESS Opinions: Improving the evaluation of groundwater representation in continental to global scale models		3
25	Snow cover duration trends observed at sites and predicted by multiple models. *Cryosphere*, **2020**, 14, 4687-4698	5.5	3

24	GMD Perspective: the quest to improve the evaluation of groundwater representation in continental to global scale models		3
23	ESM-SnowMIP: Assessing models and quantifying snow-related climate feedbacks **2018**,		3
22	Recurrent pattern of extreme fire weather in California. *Environmental Research Letters*, **2021**, 16, 094036	6.2	3
21	Development of a web application for examining climate data of global lake basins: CGLB. *Hydrological Research Letters*, **2015**, 9, 125-132	1.3	2
20	Toward global-scale data assimilation using SWOT: Requirements for global hydrodynamics models **2011**,		2
19	The PROFOUND database for evaluating vegetation models and simulating climate impacts on forests		2
18	Empirical strategy for stretching probability distribution in neural-network-based regression. *Neural Networks*, **2021**, 140, 113-120	9.1	2
17	Improving Satellite-Based Subhourly Surface Rain Estimates Using Vertical Rain Profile Information. *Journal of Hydrometeorology*, **2019**, 20, 1015-1026	3.7	1
16	Evaluation of Groundwater Simulations in Benin from the ALMIP2 Project. *Journal of Hydrometeorology*, **2019**, 20, 339-354	3.7	1
15	Evapotranspiration seasonality across the Amazon basin **2017**,		1
14	Conversion of surface water coverage to water volume using satellite data. *Hydrological Research Letters*, **2014**, 8, 15-19	1.3	1
13	PROJECTION OF THE CHANGES IN WEATHER POTENTIALLY AFFECTING TOURISM IN THE YAEYAMA ISLANDS UNDER GLOBAL WARMING. *Journal of Japan Society of Civil Engineers Ser G (Environmental Research)*, **2018**, 74, I_19-I_24	0.1	1
12	VALIDATION OF RIVER DISCHARGE FROM A TERRESTRIAL MODEL WITH 1KM RESOLUTION OVER JAPAN. *Journal of Japan Society of Civil Engineers Ser G (Environmental Research)*, **2017**, 73, I_71-I_79	0.1	1
11	Changes in fire weather climatology under 1.5 °C and 2.0 °C warming. *Environmental Research Letters*, **2021**, 16, 034058	6.2	1
10	Macroscale Hydrological Modeling and Global Water Balance. *Geophysical Monograph Series*, **2016**, 1-16	1.1	1
9	Development of a coupled simulation framework representing the lake and river continuum of mass and energy (TCHOIR v1.0). *Geoscientific Model Development*, **2021**, 14, 5669-5693	6.3	1
8	Emergent constraints on future precipitation changes.. *Nature*, **2022**, 602, 612-616	50.4	1
7	Hydrologic Cycle **2017**, 1-12		0

List of Publications

6	Midlatitude mixed-phase stratocumulus clouds and their interactions with aerosols: how ice processes affect microphysical, dynamic, and thermodynamic development in those clouds and interactions?. *Atmospheric Chemistry and Physics*, **2021**, 21, 16843-16868	6.8	0
5	Estimation of glacier mass changes using GRACE satellite and numerical models. *Journal of Japan Society of Civil Engineers Ser G (Environmental Research)*, **2013**, 69, I_53-I_59	0.1	
4	DETERMINANTS OF WATER TEMPERATURE IN THE RIVERS OVER LOW-LATITUDE REGIONS. *Journal of Japan Society of Civil Engineers Ser B1 (Hydraulic Engineering)*, **2018**, 74, I_583-I_588	0.1	
3	Validation of Gravity Recovery and Climate Experiment Data for Assessment of Terrestrial Water Storage Variations **2012**, 481-506		
2	TOWARD THE GLOBAL-SCALE ESTIMATION OF WATER RESOURCES WITH A COUPLED MODEL FRAMEWORK OF HYDRO- AND THERMODYNAMICS IN RIVERS AND LAKES. *Journal of Japan Society of Civil Engineers Ser B1 (Hydraulic Engineering)*, **2021**, 77, I_241-I_246	0.1	
1	EVALUATION OF SNOWFALL DETECTION PERFORMANCE OF SATELLITE- BASED RETRIEVAL PRODUCTS FOR FINNISH SNOWFALL CASES. *Journal of Japan Society of Civil Engineers Ser B1 (Hydraulic Engineering)*, **2021**, 77, I_1201-I_1206	0.1	