Chulsang Yoo

List of Publications by Year
in descending order

98 papers	1,313 citations	394421 19 h-index	414414 32 g-index
98 all docs	98 docs citations	98 times ranked	1232 citing authors

#	ARTICLE	IF	CITATIONS
1	Nonparametric Approach for Estimating Return Periods of Droughts in Arid Regions. Journal of Hydrologic Engineering - ASCE, 2003, 8, 237-246.	1.9	129
2	Nonparametric Approach for Bivariate Drought Characterization Using Palmer Drought Index. Journal of Hydrologic Engineering - ASCE, 2006, 11, 134-143.	1.9	72
3	EOF analysis of surface soil moisture field variability. Advances in Water Resources, 2004, 27, 831-842.	3.8	71
4	Hydrological Modeling and Evaluation of Rainwater Harvesting Facilities: Case Study on Several Rainwater Harvesting Facilities in Korea. Journal of Hydrologic Engineering - ASCE, 2009, 14, 545-561.	1.9	57
5	Evaluation of Rain Gauge Network Using Entropy Theory: Comparison of Mixed and Continuous Distribution Function Applications. Journal of Hydrologic Engineering - ASCE, 2008, 13, 226-235.	1.9	46
6	Evaluation of the impact of rainfall on soil moisture variability. Advances in Water Resources, 1998, 21, 375-384.	3.8	45
7	Rainfall frequency analysis using a mixed Gamma distribution: evaluation of the global warming effect on daily rainfall. Hydrological Processes, 2005, 19, 3851-3861.	2.6	44
8	Long term analysis of wet and dry years in Seoul, Korea. Journal of Hydrology, 2006, 318, 24-36.	5.4	43
9	Application of spatial EOF and multivariate time series model for evaluating agricultural drought vulnerability in Korea. Advances in Water Resources, 2011, 34, 340-350.	3.8	35
10	Application of bivariate frequency analysis to the derivation of rainfall–frequency curves. Stochastic Environmental Research and Risk Assessment, 2010, 24, 389-397.	4.0	29
11	The history of rainfall data time-resolution in a wide variety of geographical areas. Journal of Hydrology, 2020, 590, 125258.	5.4	29
12	Interpretation of mean–field bias correction of radar rain rate using the concept of linear regression. Hydrological Processes, 2014, 28, 5081-5092.	2.6	25
13	Classification and evaluation of the documentary-recorded storm events in the Annals of the Choson Dynasty (1392–1910), Korea. Journal of Hydrology, 2015, 520, 387-396.	5.4	24
14	Stochastic Modeling of Multidimensional Precipitation Fields Considering Spectral Structure. Water Resources Research, 1996, 32, 2175-2187.	4.2	23
15	Optimal design of stormwater detention basin using the genetic algorithm. KSCE Journal of Civil Engineering, 2012, 16, 660-666.	1.9	22
16	Stochastic characterization of space-time precipitation: Implications for remote sensing. Advances in Water Resources, 1994, 17, 47-59.	3.8	21
17	Effect of zero measurements on the spatial correlation structure of rainfall. Stochastic Environmental Research and Risk Assessment, 2007, 21, 287-297.	4.0	21
18	Rainfall frequency analysis using a mixed GEV distribution: a case study for annual maximum rainfalls in South Korea. Stochastic Environmental Research and Risk Assessment, 2013, 27, 1143-1153.	4.0	21

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19	Evaluation of Some Ground Truth Designs for Satellite Estimates of Rain Rate. Journal of Atmospheric and Oceanic Technology, 2002, 19, 65-73.	1.3	20
20	Quantification of drought using a rectangular pulses Poisson process model. Journal of Hydrology, 2008, 355, 34-48.	5.4	20
21	Evaluation of Rainfall Temporal Distribution Models with Annual Maximum Rainfall Events in Seoul, Korea. Water (Switzerland), 2018, 10, 1468.	2.7	20
22	Basin average rainfall and its sampling error. Water Resources Research, 2002, 38, 41-1-41-7.	4.2	19
23	Influence of climate variation on seasonal precipitation in the Colorado River Basin. Stochastic Environmental Research and Risk Assessment, 2008, 22, 411-420.	4.0	19
24	Use of a dual Kalman filter for real-time correction of mean field bias of radar rain rate. Journal of Hydrology, 2014, 519, 2785-2796.	5.4	19
25	Bivariate Frequency Analysis of Annual Maximum Rainfall Event Series in Seoul, Korea. Journal of Hydrologic Engineering - ASCE, 2014, 19, 1080-1088.	1.9	19
26	Use of mixed bivariate distributions for deriving inter-station correlation coefficients of rain rate. Hydrological Processes, 2007, 21, 3078-3086.	2.6	18
27	Comparison of GCM Precipitation Predictions with Their RMSEs and Pattern Correlation Coefficients. Water (Switzerland), 2018, 10, 28.	2.7	18
28	Sampling of soil moisture fields and related errors: implications to the optimal sampling design. Advances in Water Resources, 2001, 24, 521-530.	3.8	16
29	Estimation of areal reduction factors using a mixed gamma distribution. Journal of Hydrology, 2007, 335, 271-284.	5.4	16
30	Effect of Rainfall Temporal Distribution on the Conversion Factor to Convert the Fixed-Interval into True-Interval Rainfall. Journal of Hydrologic Engineering - ASCE, 2015, 20, .	1.9	16
31	Parameter Estimation of the Muskingum Channel Flood-Routing Model in Ungauged Channel Reaches. Journal of Hydrologic Engineering - ASCE, 2017, 22, .	1.9	16
32	Assessment of drought vulnerability based on the soil moisture PDF. Stochastic Environmental Research and Risk Assessment, 2006, 21, 131-141.	4.0	15
33	Stochastic multi-site generation of daily rainfall occurrence in south Florida. Stochastic Environmental Research and Risk Assessment, 2008, 22, 705-717.	4.0	15
34	Land Cover Change and Its Impact on Soil-Moisture-Field Evolution. Journal of Hydrologic Engineering - ASCE, 2001, 6, 436-441.	1.9	14
35	Evaluation of the gap filler radar as an implementation of the 1.5 km <scp>CAPPI</scp> data in Korea. Meteorological Applications, 2016, 23, 76-88.	2.1	14
36	Method for Estimating Concentration Time and Storage Coefficient of the Clark Model Using Rainfall-Runoff Measurements. Journal of Hydrologic Engineering - ASCE, 2014, 19, 626-634.	1.9	13

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37	Usefulness of relay-information-transfer for radar QPE. Journal of Hydrology, 2015, 531, 308-319.	5.4	13
38	Evaluation of the Concept of Critical Rainfall Duration by Bivariate Frequency Analysis of Annual Maximum Independent Rainfall Event Series in Seoul, Korea. Journal of Hydrologic Engineering - ASCE, 2016, 21, .	1.9	13
39	Effect of Multicollinearity on the Bivariate Frequency Analysis of Annual Maximum Rainfall Events. Water (Switzerland), 2019, 11, 905.	2.7	12
40	Theoretical Backgrounds of Basin Concentration Time and Storage Coefficient and Their Empirical Formula. Journal of Korea Water Resources Association, 2013, 46, 155-169.	0.2	12
41	Model vs. design sensitivity to the ground-truth problem of rainfall observation. Advances in Water Resources, 2002, 25, 651-661.	3.8	10
42	Simulation of infiltration facilities using the SEEP/W model and quantification of flood runoff reduction effect by the decrease in CN. Water Science and Technology, 2016, 74, 118-129.	2.5	10
43	Experiment of wind-driven-rain measurement on building walls and its in-situ validation. Building and Environment, 2020, 185, 107269.	6.9	10
44	Application of the SCS–CN Method to the Hancheon Basin on the Volcanic Jeju Island, Korea. Water (Switzerland), 2020, 12, 3350.	2.7	10
45	Sensitivity of soil moisture field evolution to rainfall forcing. Hydrological Processes, 2005, 19, 1855-1869.	2.6	9
46	Estimating Characteristics of Rainfall and Their Effects on Sampling Schemes: Case Study for Han River Basin, Korea. Journal of Hydrologic Engineering - ASCE, 2003, 8, 145-157.	1.9	8
47	Storm-coverage effect on dynamic flood-frequency analysis: empirical data analysis. Hydrological Processes, 2004, 18, 159-178.	2.6	8
48	Sampling error of areal average rainfall due to radar partial coverage. Stochastic Environmental Research and Risk Assessment, 2010, 24, 1097-1111.	4.0	7
49	Uncertainty of areal average rainfall and its effect on runoff simulation: A case study for the Chungju Dam Basin, Korea. KSCE Journal of Civil Engineering, 2012, 16, 1085-1092.	1.9	7
50	Consideration of rainfall intermittency and log-normality on the merging of radar and the rain gauge rain rate. Journal of Hydrology, 2020, 589, 125178.	5.4	7
51	Using Extended Kalman Filter for Real-time Decision of Parameters of Z-R Relationship. Journal of Korea Water Resources Association, 2014, 47, 119-133.	0.2	7
52	Nonparametric approach for estimating effects of ENSO on return periods of droughts. KSCE Journal of Civil Engineering, 2003, 7, 629-636.	1.9	6
53	A mixture-density-network based approach for finding rating curves: Facing multi-modality and unbalanced data distribution. KSCE Journal of Civil Engineering, 2010, 14, 243-250.	1.9	6
54	On quality of radar rainfall with respect to temporal and spatial resolution for application to urban areas. Meteorological Applications, 2017, 24, 19-30.	2.1	6

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55	Evaluation of Dam Water-Supply Capacity in Korea Using the Water-Shortage Index. Water (Switzerland), 2021, 13, 956.	2.7	6
56	Inter-station correlation and estimation errors of areal average rain rate. Stochastic Environmental Research and Risk Assessment, 2008, 22, 143-157.	4.0	5
57	Effect of threshold on the comparison of radar and rain gauge rain rate. KSCE Journal of Civil Engineering, 2015, 19, 392-400.	1.9	5
58	Importance of noâ€rain measurements on the comparison of radar and rain gauge rain rate. Hydrological Processes, 2010, 24, 924-933.	2.6	4
59	Quantification of Flood Runoff Reduction Effect of Storage Facilities by the Decrease in CN. Journal of Hydrologic Engineering - ASCE, 2013, 18, 729-733.	1.9	4
60	Decision of minimum rain gauge density in a combined radar-rain gauge rainfall observation system: a case study of the Imjin River Basin, Korea. Water International, 2010, 35, 49-62.	1.0	3
61	Detection of mean-field bias of the radar rain rate using rain gauges available within a small portion of radar umbrella: a case study of the Donghae (East Sea) radar in Korea. Stochastic Environmental Research and Risk Assessment, 2013, 27, 423-433.	4.0	3
62	Evaluation of Error Indices of Radar Rain Rate Targeting Rainfall-Runoff Analysis. Journal of Hydrologic Engineering - ASCE, 2016, 21, 05016021.	1.9	3
63	A Bias Correction Method for Rainfall Forecasts Using Backward Storm Tracking. Water (Switzerland), 2018, 10, 1728.	2.7	3
64	Bias from Rainfall Spatial Distribution in the Application of Areal Reduction Factor. KSCE Journal of Civil Engineering, 2018, 22, 5229-5241.	1.9	3
65	Optimize Short-Term Rainfall Forecast with Combination of Ensemble Precipitation Nowcasts by Lagrangian Extrapolation. Water (Switzerland), 2019, 11, 1752.	2.7	3
66	Sensitivity evaluation of the flash flood warning system introduced to ungauged small mountainous basins in Korea. Journal of Mountain Science, 2019, 16, 971-990.	2.0	3
67	Third-Order Polynomial Normal Transform Applied to Multivariate Hydrologic Extremes. Water (Switzerland), 2019, 11, 490.	2.7	3
68	Evaluation of the Storage Effect Considering Possible Redevelopment Options of the Peace Dam in South Korea. Water (Switzerland), 2020, 12, 1674.	2.7	3
69	Analysis on Characteristics of Orographic Effect about the Rainfall Using Radar Data: A Case Study on Chungju Dam Basin. Journal of Korea Water Resources Association, 2015, 48, 393-407.	0.2	3
70	Evaluation of Problems to Apply Runoff Curve Number to Mountain Area in Korea. Korean Society of Hazard Mitigation, 2014, 14, 293-298.	0.2	3
71	Numerical Experiments Applying Simple Kriging to Intermittent and Log-Normal Data. Water (Switzerland), 2022, 14, 1364.	2.7	3
72	Multi-dimensional precipitation models and their application to the ground-truth problem. KSCE Journal of Civil Engineering, 1998, 2, 419-429.	1.9	2

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73	Rainfall–runoff analysis based on competing linear impulse responses: decomposition of rainfall–runoff processes. Hydrological Processes, 2008, 22, 660-669.	2.6	2
74	The runoff uncertainty caused by the mismatch between the radar rain rate and the topographical information data. KSCE Journal of Civil Engineering, 2016, 20, 960-970.	1.9	2
75	Consideration of documentary records in the Annals of the Choson Dynasty for the frequency analysis of rainfall in Seoul, Korea. Meteorological Applications, 2017, 24, 31-42.	2.1	2
76	Bayesian Consideration of GCM Simulations for Rainfall Quantile Estimation: Uncertainty from GCMs and RCP Scenarios. Journal of Hydrologic Engineering - ASCE, 2018, 23, .	1.9	2
77	Comparison of annual maximum rainfall events of modern rain gauge data (1961–2010) and Chukwooki data (1777–1910) in Seoul, Korea. Journal of Water and Climate Change, 2018, 9, 58-73.	2.9	2
78	Relative Roles of Time–Area Curve and Storage Coefficient on the Shape of Clark's Instantaneous Unit Hydrograph: Analytical Approach. Journal of Hydrologic Engineering - ASCE, 2021, 26, .	1.9	2
79	Multi-dimensional precipitation models and their application to the ground-truth problem: Multiple raingauge case. KSCE Journal of Civil Engineering, 2001, 5, 51-58.	1.9	1
80	On the variation of frequency-based rainfall amounts: a case study for evaluating recent extreme rainfalls in Korea. Stochastic Environmental Research and Risk Assessment, 2003, 17, 217-227.	4.0	1
81	On optimal sampling design for rainfall field. KSCE Journal of Civil Engineering, 2006, 10, 47-52.	1.9	1
82	Storage effect of dam reservoirs: evaluation of three nonlinear reservoir models. Water Science and Technology: Water Supply, 2017, 17, 1436-1446.	2.1	1
83	Parameter estimation of a dual-pol radar rain rate estimator with truncated paired data. Water Science and Technology: Water Supply, 2020, 20, 2616-2629.	2.1	1
84	Probabilistic assessment of hydrologic retention performance of green roof considering aleatory and epistemic uncertainties. Hydrology Research, 2020, 51, 1377-1396.	2.7	1
85	Hillslope Contribution to the Clark Instantaneous Unit Hydrograph: Application to the Seolmacheon Basin, Korea. Water (Switzerland), 2021, 13, 1707.	2.7	1
86	Real-Time Parameter Estimation of a Dual-Pol Radar Rain Rate Estimator Using the Extended Kalman Filter. Remote Sensing, 2021, 13, 2365.	4.0	1
87	The Error Structure of the CAPPI and the Correction of the Range Dependent Error due to the Earth Curvature. Atmosphere, 2012, 22, 309-319.	0.3	1
88	Bivariate Frequency Analysis of Dam Storage Capacity before and after the Rainy Season and Evaluation on Water Supply Capacity. Journal of Korea Water Resources Association, 2014, 47, 1199-1212.	0.2	1
89	Analysis of the Spatiotemporal Behavior of Precipitation in South Korea Based on EOF and CSEOF Analyses. Korean Society of Hazard Mitigation, 2020, 20, 21-32.	0.2	1
90	Rainfall-runoff Analysis Method Considering the Effect of High-rise Buildings. Korean Society of Hazard Mitigation, 2020, 20, 407-420.	0.2	1

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91	Assessment of the Contribution of Rainwater Collection to Crop Production on Udo Island, Korea. Water (Switzerland), 2021, 13, 3299.	2.7	1
92	Observation Experiment of Wind-Driven Rain Harvesting from a Building Wall. Water (Switzerland), 2022, 14, 603.	2.7	1
93	On the Use of Threshold for the Ground Validation of Satellite Rain Rate. Advances in Meteorology, 2015, 2015, 1-11.	1.6	0
94	Broken-Line Model of Dam Storage and Evaluation of Water Supply Safety Using a Bivariate Frequency Analysis. Journal of Water Resources Planning and Management - ASCE, 2017, 143, 05017011.	2.6	0
95	Vulnerability Assessment of Dam Water Supply Capacity Based on Bivariate Frequency Analysis Using Copula. Water (Switzerland), 2018, 10, 1113.	2.7	0
96	Combination of Radar and Rain Gauge Information to Map the Snowy Region in Jeju Island, Korea: A Case Study. Advances in Meteorology, 2019, 2019, 1-13.	1.6	0
97	Bayesian Update of Hydrometeorological Probable Maximum Precipitation. Journal of Hydrologic Engineering - ASCE, 2019, 24, 04019048.	1.9	0
98	Evaluation of Rainfall Intermittency on the Simple Kriging. Korean Society of Hazard Mitigation, 2015, 15, 383-393.	0.2	0