Upmanu Lall

List of Publications by Citations

276 papers	9,392 citations	52 h-index	84 g-index
315 ext. papers	10,845 ext. citations	4.9 avg, IF	6.63 L-index

#	Paper	IF	Citations
276	A Nearest Neighbor Bootstrap For Resampling Hydrologic Time Series. *Water Resources Research*, **1996**, 32, 679-693	5.4	496
275	A k-nearest-neighbor simulator for daily precipitation and other weather variables. *Water Resources Research*, **1999**, 35, 3089-3101	5.4	285
274	Estimation of mutual information using kernel density estimators. *Physical Review E*, **1995**, 52, 2318-2321	2.4	234
273	Floods and climate: emerging perspectives for flood risk assessment and management. *Natural Hazards and Earth System Sciences*, **2014**, 14, 1921-1942	3.9	184
272	Streamflow simulation: A nonparametric approach. *Water Resources Research*, **1997**, 33, 291-308	5.4	181
271	Floods in a changing climate: Does the past represent the future?. *Water Resources Research*, **2001**, 37, 3193-3205	5.4	173
270	Water and economic development: The role of variability and a framework for resilience. *Natural Resources Forum*, **2006**, 30, 306-317	2.2	170
269	Flood risks and impacts: A case study of Thailand floods in 2011 and research questions for supply chain decision making. *International Journal of Disaster Risk Reduction*, **2015**, 14, 256-272	4.5	152
268	Spatiotemporal Variability of ENSO and SST Teleconnections to Summer Drought over the United States during the Twentieth Century. *Journal of Climate*, **2000**, 13, 4244-4255	4.4	143
267	Categorical Climate Forecasts through Regularization and Optimal Combination of Multiple GCM Ensembles*. *Monthly Weather Review*, **2002**, 130, 1792-1811	2.4	142
266	Multi-variate flood damage assessment: a tree-based data-mining approach. *Natural Hazards and Earth System Sciences*, **2013**, 13, 53-64	3.9	141
265	Use of satellite imagery for water quality studies in New York Harbor. *Estuarine, Coastal and Shelf Science*, **2004**, 61, 437-448	2.9	141
264	A rainwater harvesting system reliability model based on nonparametric stochastic rainfall generator. *Journal of Hydrology*, **2010**, 392, 105-118	6	137
263	Changing Frequency and Intensity of Rainfall Extremes over India from 1951 to 2003. *Journal of Climate*, **2009**, 22, 4737-4746	4.4	130
262	National trends in drinking water quality violations. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 2078-2083	11.5	129
261	Improved Combination of Multiple Atmospheric GCM Ensembles for Seasonal Prediction. *Monthly Weather Review*, **2004**, 132, 2732-2744	2.4	119
260	Is an Epic Pluvial Masking the Water Insecurity of the Greater New York City Region?*,+. *Journal of Climate*, **2013**, 26, 1339-1354	4.4	116

259	Depletion and response of deep groundwater to climate-induced pumping variability. *Nature Geoscience*, **2017**, 10, 105-108	18.3	111
258	Hydrology: The interdisciplinary science of water. *Water Resources Research*, **2015**, 51, 4409-4430	5.4	108
257	Disaggregation procedures for stochastic hydrology based on nonparametric density estimation. *Water Resources Research*, **1998**, 34, 107-119	5.4	107
256	A Nonparametric Wet/Dry Spell Model for Resampling Daily Precipitation. *Water Resources Research*, **1996**, 32, 2803-2823	5.4	105
255	Magnitude and timing of annual maximum floods: Trends and large-scale climatic associations for the Blacksmith Fork River, Utah. *Water Resources Research*, **2000**, 36, 3641-3651	5.4	104
254	Anomalous ENSO Occurrences: An Alternate View*. *Journal of Climate*, **1997**, 10, 2351-2357	4.4	102
253	Probabilistic Multimodel Regional Temperature Change Projections. *Journal of Climate*, **2006**, 19, 4326-4343	4.4	99
252	Flood quantiles in a changing climate: Seasonal forecasts and causal relations. *Water Resources Research*, **2003**, 39,	5.4	99
251	Climate informed flood frequency analysis and prediction in Montana using hierarchical Bayesian modeling. *Geophysical Research Letters*, **2008**, 35,	4.9	96
250	Spatial scaling in a changing climate: A hierarchical bayesian model for non-stationary multi-site annual maximum and monthly streamflow. *Journal of Hydrology*, **2010**, 383, 307-318	6	92
249	Greedy algae reduce arsenate. *Limnology and Oceanography*, **2003**, 48, 2275-2288	4.8	91
248	Seasonal to interannual ensemble streamflow forecasts for Ceara, Brazil: Applications of a multivariate, semiparametric algorithm. *Water Resources Research*, **2003**, 39,	5.4	89
247	The future role of dams in the United States of America. *Water Resources Research*, **2017**, 53, 982-998	5.4	87
246	A stochastic nonparametric technique for space-time disaggregation of streamflows. *Water Resources Research*, **2007**, 43,	5.4	82
245	Recent advances in nonparametric function estimation: Hydrologic applications. *Reviews of Geophysics*, **1995**, 33, 1093-1102	23.1	82
244	A copula-based nonstationary frequency analysis for the 2012–2015 drought in California. *Water Resources Research*, **2016**, 52, 5662-5675	5.4	80
243	Nonlinear Dynamics of the Great Salt Lake: Dimension Estimation. *Water Resources Research*, **1996**, 32, 149-159	5.4	80
242	A nonparametric stochastic approach for multisite disaggregation of annual to daily streamflow. *Water Resources Research*, **2010**, 46,	5.4	79

241	Stochastic simulation model for nonstationary time series using an autoregressive wavelet decomposition: Applications to rainfall and temperature. *Water Resources Research*, **2007**, 43,	5.4	76
240	Flood frequencies and durations and their response to El Ni Southern Oscillation: Global analysis. *Journal of Hydrology*, **2016**, 539, 358-378	6	73
239	A nonparametric approach for daily rainfall simulation. *Mathematics and Computers in Simulation*, **1999**, 48, 361-371	3.3	67
238	Interannual variability in western US precipitation. *Journal of Hydrology*, **1998**, 210, 51-67	6	66
237	Over-extraction from shallow bedrock versus deep alluvial aquifers: Reliability versus sustainability considerations for India's groundwater irrigation. *Water Resources Research*, **2011**, 47,	5.4	64
236	Nonlinear Dynamics of the Great Salt Lake: Nonparametric Short-Term Forecasting. *Water Resources Research*, **1996**, 32, 975-985	5.4	64
235	Dynamical Structure of Extreme Floods in the U.S. Midwest and the United Kingdom. *Journal of Hydrometeorology*, **2013**, 14, 485-504	3.7	62
234	Improved water allocation utilizing probabilistic climate forecasts: Short-term water contracts in a risk management framework. *Water Resources Research*, **2009**, 45,	5.4	61
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232	The Great Salt Lake: A Barometer of Low-Frequency Climatic Variability. *Water Resources Research*, **1995**, 31, 2503-2515	5.4	60
231	A Tree-Ring-Based Reconstruction of Delaware River Basin Streamflow Using Hierarchical Bayesian Regression. *Journal of Climate*, **2013**, 26, 4357-4374	4.4	58
230	Nonlinear dynamics of the Great Salt Lake: system identification and prediction. *Climate Dynamics*, **1996**, 12, 287-297	4.2	58
229	Kernel flood frequency estimators: Bandwidth selection and kernel choice. *Water Resources Research*, **1993**, 29, 1003-1015	5.4	58
228	Using Bayesian networks to model watershed management decisions: an East Canyon Creek case study. *Journal of Hydroinformatics*, **2005**, 7, 267-282	2.6	56
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226	Decadal-to-centennial-scale climate variability: Insights into the rise and fall of the Great Salt Lake. *Geophysical Research Letters*, **1995**, 22, 937-940	4.9	56
225	Kernel quantite function estimator for flood frequency analysis. *Water Resources Research*, **1994**, 30, 3095-3103	5.4	54
224	A climate informed model for nonstationary flood risk prediction: Application to Negro River at Manaus, Amazonia. *Journal of Hydrology*, **2015**, 522, 594-602	6	52

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222	Classifying North Atlantic Tropical Cyclone Tracks by Mass Moments*. *Journal of Climate*, **2009**, 22, 5481-5494	4.4	52
221	Multisite disaggregation of monthly to daily streamflow. *Water Resources Research*, **2000**, 36, 1823-1833	5.4	50
220	Modeling multivariable hydrological series: Principal component analysis or independent component analysis?. *Water Resources Research*, **2007**, 43,	5.4	49
219	A hierarchical Bayesian regional model for nonstationary precipitation extremes in Northern California conditioned on tropical moisture exports. *Water Resources Research*, **2015**, 51, 1472-1492	5.4	48
218	Seasonality and Interannual Variations of Northern Hemisphere Temperature: Equator-to-Pole Gradient and Ocean–Land Contrast. *Journal of Climate*, **1999**, 12, 1086-1100	4.4	48
217	El-Niño/Southern Oscillation (ENSO) influences on monthly NO3 load and concentration, stream flow and precipitation in the Little River Watershed, Tifton, Georgia (GA). *Journal of Hydrology*, **2010**, 381, 352-363	6	46
216	A stochastic nonparametric approach for streamflow generation combining observational and paleoreconstructed data. *Water Resources Research*, **2008**, 44,	5.4	46
215	Nonhomogeneous Markov Model for Daily Precipitation. *Journal of Hydrologic Engineering - ASCE*, **1996**, 1, 33-40	1.8	46
214	The Role of Monthly Updated Climate Forecasts in Improving Intraseasonal Water Allocation. *Journal of Applied Meteorology and Climatology*, **2009**, 48, 1464-1482	2.7	44
213	Simulation of daily rainfall scenarios with interannual and multidecadal climate cycles for South Florida. *Stochastic Environmental Research and Risk Assessment*, **2009**, 23, 879-896	3.5	44
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209	Locally weighted polynomial regression: Parameter choice and application to forecasts of the Great Salt Lake. *Water Resources Research*, **2006**, 42,	5.4	41
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204	The unusual 2013–2015 drought in South Korea in the context of a multicentury precipitation record: Inferences from a nonstationary, multivariate, Bayesian copula model. *Geophysical Research Letters*, **2016**, 43, 8534-8544	4.9	38
203	Modeling and simulation of the vulnerability of interdependent power-water infrastructure networks to cascading failures. *Journal of Systems Science and Systems Engineering*, **2016**, 25, 102-118	1.2	38
202	Seasonal and annual maximum streamflow forecasting using climate information: application to the Three Gorges Dam in the Yangtze River basin, China / Prévision d'écoulements saisonnier et maximum annuel à l'aide d'informations climatiques: application au Barrage des Trois Gorges dans le bassin du Fleuve Yangtze, Chine. *Hydrological Sciences Journal*, **2009**, 54, 582-595	3.5	38
201	Local polynomial method for ensemble forecast of time series. *Nonlinear Processes in Geophysics*, **2005**, 12, 397-406	2.9	38
200	Resolving Contrasting Regional Rainfall Responses to El Niño over Tropical Africa. *Journal of Climate*, **2016**, 29, 1461-1476	4.4	37
199	Role of Retrospective Forecasts of GCMs Forced with Persisted SST Anomalies in Operational Streamflow Forecasts Development. *Journal of Hydrometeorology*, **2008**, 9, 212-227	3.7	37
198	An optimization model for screening multipurpose reservoir systems. *Water Resources Research*, **1988**, 24, 953-968	5.4	37
197	Hierarchical Bayesian modeling of multisite daily rainfall occurrence: Rainy season onset, peak, and end. *Water Resources Research*, **2009**, 45,	5.4	35
196	Support vector machines for nonlinear state space reconstruction: Application to the Great Salt Lake time series. *Water Resources Research*, **2005**, 41,	5.4	35
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193	Hierarchical Bayesian clustering for nonstationary flood frequency analysis: Application to trends of annual maximum flow in Germany. *Water Resources Research*, **2015**, 51, 6586-6601	5.4	34
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191	A hierarchical Bayesian GEV model for improving local and regional flood quantile estimates. *Journal of Hydrology*, **2016**, 541, 816-823	6	33
190	A comparison of tail probability estimators for flood frequency analysis. *Journal of Hydrology*, **1993**, 151, 343-363	6	33
189	Climate informed monthly streamflow forecasts for the Brazilian hydropower network using a periodic ridge regression model. *Journal of Hydrology*, **2010**, 380, 438-449	6	32
188	Evaluation of kernel density estimation methods for daily precipitation resampling. *Stochastic Hydrology & Hydraulics*, **1997**, 11, 523-547		32

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186	A Snapshot of the World's Groundwater Challenges. *Annual Review of Environment and Resources*, **2020**, 45, 171-194	17.2	31
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184	El Niño-induced flooding in the U.S. West: What can we expect?. *Eos*, **2002**, 83, 349	1.5	29
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181	Intrinsic modulation of ENSO predictability viewed through a local Lyapunov lens. *Climate Dynamics* , **2014**, 42, 253-270	4.2	28
180	A Simple Framework for Incorporating Seasonal Streamflow Forecasts into Existing Water Resource Management Practices1. *Journal of the American Water Resources Association*, **2010**, 46, 574-585	2.1	28
179	Multivariate streamflow forecasting using independent component analysis. *Water Resources Research*, **2008**, 44,	5.4	28
178	Groundwater depletion will reduce cropping intensity in India. *Science Advances*, **2021**, 7,	14.3	28
177	Large scale climate and rainfall seasonality in a Mediterranean Area: Insights from a non-homogeneous Markov model applied to the Agro-Pontino plain. *Hydrological Processes*, **2017**, 31, 668-686	3.3	27
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174	Assessing chronic and climate-induced water risk through spatially distributed cumulative deficit measures: A new picture of water sustainability in India. *Water Resources Research*, **2013**, 49, 2135-2145	5.4	27
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171	Flood hazard assessment from storm tides, rain and sea level rise for a tidal river estuary. *Natural Hazards*, **2020**, 102, 729-757	3	27
170	A kernel estimator for discrete distributions. *Journal of Nonparametric Statistics*, **1995**, 4, 409-426	0.7	26

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167	Uncertainty assessment of hydrologic and climate forecast models in Northeastern Brazil. *Hydrological Processes*, **2012**, 26, 3875-3885	3.3	25
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164	Changes in the seasonality of tornado and favorable genesis conditions in the central United States. *Geophysical Research Letters*, **2015**, 42, 4224-4231	4.9	24
163	DYNAMIC NEAREST-NEIGHBOR METHOD FOR ESTIMATING SOIL WATER PARAMETERS. *Transactions of the American Society of Agricultural Engineers*, **2004**, 47, 1437-1444		24
162	Atmospheric Flow Indices and Interannual Great Salt Lake Variability. *Journal of Hydrologic Engineering - ASCE*, **1996**, 1, 55-62	1.8	24
161	Multiscale temporal variability and regional patterns in 555 years of conterminous U.S. streamflow. *Water Resources Research*, **2017**, 53, 3047-3066	5.4	23
160	Atmospheric Circulation Patterns Associated with Extreme United States Floods Identified via Machine Learning. *Scientific Reports*, **2019**, 9, 7171	4.9	23
159	A hierarchical Bayesian regression model for predicting summer residential electricity demand across the U.S.A.. *Energy*, **2017**, 140, 601-611	7.9	23
158	Probabilistic Models Significantly Reduce Uncertainty in Hurricane Harvey Pluvial Flood Loss Estimates. *Earth's Future*, **2019**, 7, 384-394	7.9	22
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143	Can a paleodrought record be used to reconstruct streamflow?: A case study for the Missouri River Basin. *Water Resources Research*, **2016**, 52, 5195-5212	5.4	18
142	Surface Temperature Gradients as Diagnostic Indicators of Midlatitude Circulation Dynamics. *Journal of Climate*, **2012**, 25, 4154-4171	4.4	18
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140	Optimal Crop Choice, Irrigation Allocation, and the Impact of Contract Farming. *Production and Operations Management*, **2013**, 22, n/a-n/a	3.6	17
139	Yield Model for Screening Surface- and Ground-Water Development. *Journal of Water Resources Planning and Management - ASCE*, **1995**, 121, 9-22	2.8	17
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135	Comment on "Quantifying renewable groundwater stress with GRACE" by Alexandra S. Richey et al.. *Water Resources Research*, **2016**, 52, 4184-4187	5.4	16
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125	Can Electricity Pricing Save India's Groundwater? Field Evidence from a Novel Policy Mechanism in Gujarat. *Journal of the Association of Environmental and Resource Economists*, **2016**, 3, 819-855	2.1	15
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120	HITS: Hurricane Intensity and Track Simulator with North Atlantic Ocean Applications for Risk Assessment. *Journal of Applied Meteorology and Climatology*, **2015**, 54, 1620-1636	2.7	14
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111	County-Scale Rainwater Harvesting Feasibility in the United States: Climate, Collection Area, Density, and Reuse Considerations. *Journal of the American Water Resources Association*, **2018**, 54, 255-274	2.1	13
110	Optimizing multiple reliable forward contracts for reservoir allocation using multitime scale streamflow forecasts. *Water Resources Research*, **2017**, 53, 2035-2050	5.4	12
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