Subimal Ghosh

List of Publications by Citations

128 papers	3,776 citations	35 h-index	57 g-index
144 ext. papers	4,753 ext. citations	4.8 avg, IF	6.17 L-index

#	Paper	IF	Citations
128	Statistical downscaling of GCM simulations to streamflow using relevance vector machine. *Advances in Water Resources*, **2008**, 31, 132-146	4.7	229
127	A threefold rise in widespread extreme rain events over central India. *Nature Communications*, **2017** , 8, 708	17.4	216
126	Lack of uniform trends but increasing spatial variability in observed Indian rainfall extremes. *Nature Climate Change*, **2012**, 2, 86-91	21.4	197
125	Increasing probability of mortality during Indian heat waves. *Science Advances*, **2017**, 3, e1700066	14.3	149
124	Failure of CMIP5 climate models in simulating post-1950 decreasing trend of Indian monsoon. *Geophysical Research Letters*, **2014**, 41, 7323-7330	4.9	118
123	Weakening of Indian Summer Monsoon Rainfall due to Changes in Land Use Land Cover. *Scientific Reports*, **2016**, 6, 32177	4.9	103
122	Added value of CMIP6 over CMIP5 models in simulating Indian summer monsoon rainfall. *Atmospheric Research*, **2020**, 232, 104680	5.4	93
121	Nonparametric methods for modeling GCM and scenario uncertainty in drought assessment. *Water Resources Research*, **2007**, 43,	5.4	92
120	Modeling GCM and scenario uncertainty using a possibilistic approach: Application to the Mahanadi River, India. *Water Resources Research*, **2008**, 44,	5.4	87
119	Flip flop of Day-night and Summer-Winter Surface Urban Heat Island Intensity in India. *Scientific Reports*, **2017**, 7, 40178	4.9	85
118	Intensification of future severe heat waves in India and their effect on heat stress and mortality. *Regional Environmental Change*, **2015**, 15, 569-579	4.3	85
117	Impacts of urbanization on Indian summer monsoon rainfall extremes. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 496-516	4.4	78
116	Near-term acceleration of hydroclimatic change in the western U.S.. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 10,676-10,693	4.4	76
115	High-resolution multisite daily rainfall projections in India with statistical downscaling for climate change impacts assessment. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 3557-3578	4.4	75
114	Diametric changes in trends and patterns of extreme rainfall over India from pre-1950 to post-1950. *Geophysical Research Letters*, **2013**, 40, 3253-3258	4.9	75
113	Increased Spatial Variability and Intensification of Extreme Monsoon Rainfall due to Urbanization. *Scientific Reports*, **2018**, 8, 3918	4.9	74
112	Indian Summer Monsoon Rainfall: Implications of Contrasting Trends in the Spatial Variability of Means and Extremes. *PLoS ONE*, **2016**, 11, e0158670	3.7	70

111	Precipitation Recycling in the Indian Subcontinent during Summer Monsoon. *Journal of Hydrometeorology*, **2014**, 15, 2050-2066	3.7	68
110	SVM-PGSL coupled approach for statistical downscaling to predict rainfall from GCM output. *Journal of Geophysical Research*, **2010**, 115,		68
109	Climate change impact assessment: Uncertainty modeling with imprecise probability. *Journal of Geophysical Research*, **2009**, 114,		63
108	Do dynamic regional models add value to the global model projections of Indian monsoon?. *Climate Dynamics*, **2017**, 48, 1375-1397	4.2	61
107	Prediction of daily rainfall state in a river basin using statistical downscaling from GCM output. *Stochastic Environmental Research and Risk Assessment*, **2011**, 25, 457-474	3.5	60
106	Role of Oceanic and Land Moisture Sources and Transport in the Seasonal and Interannual Variability of Summer Monsoon in India. *Journal of Climate*, **2017**, 30, 1839-1859	4.4	56
105	Indian summer monsoon: Extreme events, historical changes, and role of anthropogenic forcings. *Wiley Interdisciplinary Reviews: Climate Change*, **2019**, 10, e571	8.4	52
104	A nonparametric kernel regression model for downscaling multisite daily precipitation in the Mahanadi basin. *Water Resources Research*, **2013**, 49, 1360-1385	5.4	51
103	Shift in Indian summer monsoon onset during 1976/1977. *Environmental Research Letters*, **2015**, 10, 054006	6.6	47
102	Do CMIP5 simulations of Indian summer monsoon rainfall differ from those of CMIP3?. *Atmospheric Science Letters*, **2014**, 15, 79-85	2.4	47
101	Credibility of statistical downscaling under nonstationary climate. *Climate Dynamics*, **2016**, 46, 1991-2023	4.2	46
100	Risk minimization in water quality control problems of a river system. *Advances in Water Resources*, **2006**, 29, 458-470	4.7	46
99	Modelling bivariate rainfall distribution and generating bivariate correlated rainfall data in neighbouring meteorological subdivisions using copula. *Hydrological Processes*, **2010**, 24, 3558-3567	3.3	41
98	Hydrologic impacts of climate change: Comparisons between hydrological parameter uncertainty and climate model uncertainty. *Journal of Hydrology*, **2018**, 566, 1-22	6	40
97	Modeling Uncertainty Resulting from Multiple Downscaling Methods in Assessing Hydrological Impacts of Climate Change. *Water Resources Management*, **2012**, 26, 3559-3579	3.7	39
96	Risk Evaluation in Water Quality Management of a River System. *Journal of Water Resources Planning and Management - ASCE*, **2004**, 130, 411-423	2.8	39
95	Streamflow prediction using multi-site rainfall obtained from hydroclimatic teleconnection. *Journal of Hydrology*, **2010**, 395, 23-38	6	38
94	Lack of Dependence of Indian Summer Monsoon Rainfall Extremes on Temperature: An Observational Evidence. *Scientific Reports*, **2016**, 6, 31039	4.9	36

93	Prediction of extreme rainfall event using weather pattern recognition and support vector machine classifier. *Theoretical and Applied Climatology*, **2013**, 114, 583-603	3	35
92	Role of Oceanic and Terrestrial Atmospheric Moisture Sources in Intraseasonal Variability of Indian Summer Monsoon Rainfall. *Scientific Reports*, **2017**, 7, 12729	4.9	32
91	Water□ood□nergy nexus with changing agricultural scenarios in India during recent decades. *Hydrology and Earth System Sciences*, **2017**, 21, 3041-3060	5.5	32
90	Comparing statistically downscaled simulations of Indian monsoon at different spatial resolutions. *Journal of Hydrology*, **2014**, 519, 3163-3177	6	31
89	Urbanization causes nonstationarity in Indian Summer Monsoon Rainfall extremes. *Geophysical Research Letters*, **2016**, 43, 11,269	4.9	30
88	Future projections of Indian summer monsoon rainfall extremes over India with statistical downscaling and its consistency with observed characteristics. *Climate Dynamics*, **2018**, 51, 1-15	4.2	29
87	Thinking about water and air to attain Sustainable Development Goals during times of COVID-19 Pandemic. *Journal of Earth System Science*, **2020**, 129, 1	1.8	29
86	Trend analysis of Indian summer monsoon rainfall at different spatial scales. *Atmospheric Science Letters*, **2009**, 10, n/a-n/a	2.4	27
85	A new bivariate risk classifier for flood management considering hazard and socio-economic dimensions. *Journal of Environmental Management*, **2020**, 255, 109733	7.9	25
84	Moisture Supply From the Western Ghats Forests to Water Deficit East Coast of India. *Geophysical Research Letters*, **2018**, 45, 4337-4344	4.9	23
83	Choice of Irrigation Water Management Practice Affects Indian Summer Monsoon Rainfall and Its Extremes. *Geophysical Research Letters*, **2019**, 46, 9126-9135	4.9	23
82	Understanding the cascade of GCM and downscaling uncertainties in hydro-climatic projections over India. *International Journal of Climatology*, **2018**, 38, e178-e190	3.5	23
81	Performance evaluation of WRF for extreme flood forecasts in a coastal urban environment. *Atmospheric Research*, **2019**, 223, 39-48	5.4	22
80	Fuzzy waste load allocation model: a multiobjective approach. *Journal of Hydroinformatics*, **2010**, 12, 83-96	2.6	22
79	Evaluation of global climate models for Indian monsoon climatology. *Environmental Research Letters*, **2012**, 7, 014012	6.2	22
78	The Chennai extreme rainfall event in 2015: The Bay of Bengal connection. *Climate Dynamics*, **2018**, 50, 2867-2879	4.2	20
77	Evaluation of wind extremes and wind potential under changing climate for Indian offshore using ensemble of 10 GCMs. *Ocean and Coastal Management*, **2016**, 121, 141-152	3.9	20
76	The influence of the El Ni□ Southern Oscillation on heat waves in India. *Meteorological Applications*, **2016**, 23, 705-713	2.1	20

75	Assessing Hydrological Impacts of Climate Change: Modeling Techniques and Challenges. *The Open Hydrology Journal*, **2010**, 4, 115-121		19
74	Use of Atmospheric Budget to Reduce Uncertainty in Estimated Water Availability over South Asia from Different Reanalyses. *Scientific Reports*, **2016**, 6, 29664	4.9	19
73	Uncertainty resulting from multiple data usage in statistical downscaling. *Geophysical Research Letters*, **2014**, 41, 4013-4019	4.9	18
72	Disentangling sea-surface temperature and anthropogenic aerosol influences on recent trends in South Asian monsoon rainfall. *Climate Dynamics*, **2019**, 52, 2287-2302	4.2	16
71	Changes in the design and operational wind due to climate change at the Indian offshore sites. *Marine Structures*, **2014**, 37, 33-53	3.8	16
70	Urbanization alters rainfall extremes over the contiguous United States. *Environmental Research Letters*, **2020**, 15, 074033	6.2	15
69	Coupled Land-Atmosphere Regional Model Reduces Dry Bias in Indian Summer Monsoon Rainfall Simulated by CFSv2. *Geophysical Research Letters*, **2018**, 45, 2476-2486	4.9	15
68	Future urban rainfall projections considering the impacts of climate change and urbanization with statistical□dynamical integrated approach. *Climate Dynamics*, **2019**, 52, 6033-6051	4.2	15
67	Characteristics of Bay of Bengal Monsoon Depressions in the 21st Century. *Geophysical Research Letters*, **2018**, 45, 6637-6645	4.9	15
66	Multi-ensemble regional simulation of Indian monsoon during contrasting rainfall years: role of convective schemes and nested domain. *Climate Dynamics*, **2018**, 50, 4127-4147	4.2	14
65	Improving Global Forecast System of extreme precipitation events with regional statistical model: Application of quantile-based probabilistic forecasts. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 1617-1634	4.4	13
64	Spatio-temporal analysis of sub-hourly rainfall over Mumbai, India: Is statistical forecasting futile?. *Journal of Earth System Science*, **2017**, 126, 1	1.8	13
63	Improved simulation of very heavy rainfall events by incorporating WUDAPT urban land use/land cover in WRF. *Urban Climate*, **2020**, 32, 100616	6.8	13
62	Predicting Sea Surface Temperatures in the North Indian Ocean with Nonlinear Autoregressive Neural Networks. *International Journal of Oceanography*, **2013**, 2013, 1-11		13
61	Assimilation of Doppler Weather Radar data with a regional WRF-3DVAR system: Impact of control variables on forecasts of a heavy rainfall case. *Advances in Water Resources*, **2019**, 126, 24-39	4.7	11
60	Regionalized Design Rainfall Estimation: an Appraisal of Inundation Mapping for Flood Management Under Data-Scarce Situations. *Water Resources Management*, **2018**, 32, 4725-4746	3.7	11
59	Flood evacuation during pandemic: a multi-objective framework to handle compound hazard. *Environmental Research Letters*, **2021**, 16, 034034	6.2	11
58	Climate change impact assessment of a river basin using CMIP5 climate models and the VIC hydrological model. *Hydrological Sciences Journal*, **2018**, 63, 596-614	3.5	10

57	The Impact of Land Cover and Land Use Change on the Indian Monsoon Region Hydroclimate. *Springer Remote Sensing/photogrammetry*, **2018**, 553-575	0.2	10
56	Projections of Extreme Dry and Wet Spells in the 21st Century India Using Stationary and Non-stationary Standardized Precipitation Indices. *Climatic Change*, **2016**, 139, 667-681	4.5	10
55	Tide-rainfall flood quotient: an incisive measure of comprehending a region response to storm-tide and pluvial flooding. *Environmental Research Letters*, **2020**, 15, 064029	6.2	10
54	Increasing agricultural risk to hydro-climatic extremes in India. *Environmental Research Letters*, **2020** , 15, 034010	6.2	10
53	A comprehensive India-wide social vulnerability analysis: highlighting its influence on hydro-climatic risk. *Environmental Research Letters*, **2020**, 15, 014005	6.2	9
52	CLIMATE CHANGE IMPACT ON HYDROLOGY AND WATER RESOURCES. *ISH Journal of Hydraulic Engineering*, **2008**, 14, 1-17	1.5	9
51	Sensitivity of various topographic data in flood management: Implications on inundation mapping over large data-scarce regions. *Journal of Hydrology*, **2020**, 590, 125523	6	9
50	Diametrically Opposite Scaling of Extreme Precipitation and Streamflow to Temperature in South and Central Asia. *Geophysical Research Letters*, **2020**, 47, e2020GL089386	4.9	9
49	Capturing transformation of flood hazard over a large River Basin under changing climate using a top-down approach. *Science of the Total Environment*, **2020**, 726, 138600	10.2	9
48	A Framework for Investigating the Diagnostic Trend in Stationary and Nonstationary Flood Frequency Analyses Under Changing Climate. *Journal of Climate Change*, **2015**, 1, 47-65	0.7	8
47	Engaging the User Community for Advancing Societal Applications of the Surface Water Ocean Topography Mission. *Bulletin of the American Meteorological Society*, **2017**, 98, ES285-ES290	6.1	7
46	Climate controls on the terrestrial water balance: Influence of aridity on the basin characteristics parameter in the Budyko framework. *Science of the Total Environment*, **2020**, 739, 139863	10.2	7
45	On the role of rainfall deficits and cropping choices in loss of agricultural yield in Marathwada, India. *Environmental Research Letters*, **2020**,	6.2	7
44	Assessment of the interannual variability of local atmospheric and ITF contribution to the subsurface heat content of southern tropical Indian Ocean in GECCO2 and ORAS4 using ROMS. *Global and Planetary Change*, **2019**, 181, 102974	4.2	7
43	Breaking out of the Box: India and Climate Action on Short-Lived Climate Pollutants. *Environmental Science & Technology*, **2016**, 50, 12527-12529	10.3	7
42	Multi-Scale Association between Vegetation Growth and Climate in India: A Wavelet Analysis Approach. *Remote Sensing*, **2019**, 11, 2703	5	7
41	Understanding the role of moisture transport on the dry bias in indian monsoon simulations by CFSv2. *Climate Dynamics*, **2019**, 52, 637-651	4.2	7
40	Decadal temperature predictions over the continental United States: Analysis and Enhancement. *Climate Dynamics*, **2017**, 49, 3587-3604	4.2	6

39	A minimalistic seasonal prediction model for Indian monsoon based on spatial patterns of rainfall anomalies. *Climate Dynamics*, **2019**, 52, 3661-3681	4.2	6
38	Observed Evidence for Steep Rise in the Extreme Flow of Western Himalayan Rivers. *Geophysical Research Letters*, **2020**, 47, e2020GL087815	4.9	6
37	Early Prediction of Extreme Rainfall Events: A Deep Learning Approach. *Lecture Notes in Computer Science*, **2016**, 154-167	0.9	6
36	Uncertainty Quantification in Water Resource Systems Modeling: Case Studies from India. *Water (Switzerland)*, **2020**, 12, 1793	3	5
35	Perturbations in the initial soil moisture conditions: Impacts on hydrologic simulation in a large river basin. *Journal of Hydrology*, **2018**, 561, 509-522	6	5
34	Impact of active and break wind spells on the demand□supply balance in wind energy in India. *Meteorology and Atmospheric Physics*, **2018**, 130, 81-97	2	5
33	Framework for assessment of climate change impact on offshore wind energy. *Meteorological Applications*, **2018**, 25, 94-104	2.1	5
32	An Improved Prediction of Indian Summer Monsoon Onset From State-of-the-Art Dynamic Model Using Physics-Guided Data-Driven Approach. *Geophysical Research Letters*, **2018**, 45, 8510-8518	4.9	5
31	Effect of Climate Change on Wind Persistence at Selected Indian Offshore Locations. *Procedia Engineering*, **2015**, 116, 615-622		5
30	Water Food Energy Nexus: Changing Scenarios in India during recent Decades		5
29	Components of Himalayan River Flows in a Changing Climate. *Water Resources Research*, **2021**, 57, e2020WR027589	5.4	5
28	Urbanisation and Surface Urban Heat Island Intensity (SUHII) **2019**, 73-90		4
27	Can the weakening of Indian Monsoon be attributed to anthropogenic aerosols?. *Environmental Research Communications*, **2019**, 1, 061006	3.1	4
26	Extreme Storms **2020**, 155-173		4
25	Partitioning of memory and real-time connections between variables in Himalayan ecohydrological process networks. *Journal of Hydrology*, **2020**, 590, 125434	6	4
24	Role of vertical velocity in improving finer scale statistical downscaling for projection of extreme precipitation. *Theoretical and Applied Climatology*, **2019**, 137, 791-804	3	4
23	Improving Convective Precipitation Forecasts Using Ensemble-Based Background Error Covariance in 3DVAR Radar Assimilation System. *Earth and Space Science*, **2020**, 7, e2019EA000667	3.1	3
22	Exploring the potential of SWOT mission for reservoir monitoring in Mahanadi basin. *Advances in Space Research*, **2022**, 69, 1481-1493	2.4	3

21	Flood risk forecasting at weather to medium range incorporating weather model, topography, socio-economic information and land use exposure. *Advances in Water Resources*, **2020**, 146, 103785	4.7	3
20	Performance of the CORDEX regional climate models in simulating offshore wind and wind potential. *Theoretical and Applied Climatology*, **2019**, 135, 1449-1464	3	3
19	Significance of 4DVAR Radar Data Assimilation in Weather Research and Forecast Model-Based Nowcasting System. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2019JD031369	4.4	2
18	Future Heat Wave Projections and Impacts **2019**, 91-107		2
17	Short and Medium Range Irrigation Scheduling Using Stochastic Simulation-Optimization Framework With Farm-Scale Ecohydrological Model and Weather Forecasts. *Water Resources Research*, **2021**, 57, e2020WR029004	5.4	2
16	Does statistical model perform at par with computationally expensive general circulation model for decadal prediction?. *Environmental Research Letters*, **2021**, 16, 064028	6.2	2
15	Impact of green roofs on heavy rainfall in tropical, coastal urban area. *Environmental Research Letters*, **2021**, 16, 074051	6.2	2
14	Relative Impacts of Projected Climate and Land Use Changes on Terrestrial Water Balance: A Case Study on Ganga River Basin. *Frontiers in Water*, **2020**, 2,	2.6	1
13	Pollutants control the process networks of urban environmental-meteorology. *Environmental Research Letters*, **2021**, 16, 014021	6.2	1
12	Gravimetry-based water storage shifting over the China-India border area controlled by regional climate variability. *Science of the Total Environment*, **2020**, 714, 136360	10.2	1
11	Revamping extended range forecast of Indian summer monsoon. *Climate Dynamics*, **2020**, 55, 3397-3411	4.2	1
10	Feedback From Vegetation to Interannual Variations of Indian Summer Monsoon Rainfall. *Water Resources Research*, **2021**, 57, e2020WR028750	5.4	1
9	Can statistical downscaling improve consensus among CMIP5 models for Indian summer monsoon rainfall projections?. *International Journal of Climatology*, **2018**, 38, 2449-2461	3.5	1
8	Land-Surface Feedback and Impacts of Land-Use Change to Indian Monsoon Rainfall **2019**, 3-20		0
7	Flood Modelling for an Urban Indian Catchment: Challenges and Way Forward. *Lecture Notes in Civil Engineering*, **2022**, 51-62	0.3	0
6	Hazard at weather scale for extreme rainfall forecast reduces uncertainty. *Water Security*, **2021**, 14, 100106	3.6	0
5	Radar reflectivity and radial velocity assimilation in a hybrid ETKF-3DVAR system for prediction of a heavy convective rainfall. *Quarterly Journal of the Royal Meteorological Society*, **2021**, 147, 2264-2280	6.4	0
4	Rationalization of automatic weather stations network over a coastal urban catchment: A multivariate approach. *Atmospheric Research*, **2021**, 254, 105511	5.4	0

3	Identification of flood seasonality and drivers across Canada. *Hydrological Processes*, **2021**, 35, e14398	3.3	0
2	IMPRECISE PROBABILITY FOR MODELING PARTIAL IGNORANCE: APPLICATION TO WASTE LOAD ALLOCATION IN A RIVER SYSTEM. *ISH Journal of Hydraulic Engineering*, **2009**, 15, 258-271	1.5	
1	Land Atmosphere Interactions in Indian Monsoon at Sub-seasonal to Seasonal Scale. *Springer Water*, **2019**, 139-152	0.3	