

# Atul Kumar Sahai

## List of Publications by Year in descending order

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93  
papers

2,424  
citations

236925

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233421

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99  
docs citations

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times ranked

2026  
citing authors

#	ARTICLE	IF	CITATIONS
1	Future projection of Indian summer monsoon variability under climate change scenario: An assessment from CMIP5 climate models. <i>Global and Planetary Change</i> , 2015, 124, 62-78.	3.5	226
2	All India summer monsoon rainfall prediction using an artificial neural network. <i>Climate Dynamics</i> , 2000, 16, 291-302.	3.8	148
3	On the recent strengthening of the relationship between ENSO and northeast monsoon rainfall over South Asia. <i>Climate Dynamics</i> , 2007, 28, 649-660.	3.8	112
4	Role of ocean-atmosphere interaction on northward propagation of Indian summer monsoon intra-seasonal oscillations (MISO). <i>Climate Dynamics</i> , 2013, 41, 1651-1669.	3.8	106
5	Eastward propagating MJO during boreal summer and Indian monsoon droughts. <i>Climate Dynamics</i> , 2009, 32, 1139-1153.	3.8	97
6	Long-lead prediction of Indian summer monsoon rainfall from global SST evolution. <i>Climate Dynamics</i> , 2003, 20, 855-863.	3.8	95
7	North Indian heavy rainfall event during June 2013: diagnostics and extended range prediction. <i>Climate Dynamics</i> , 2015, 44, 2049-2065.	3.8	85
8	Extended range prediction of active-break spells of Indian summer monsoon rainfall using an ensemble prediction system in NCEP Climate Forecast System. <i>International Journal of Climatology</i> , 2014, 34, 98-113.	3.5	83
9	Hydrologic impacts of climate change: Comparisons between hydrological parameter uncertainty and climate model uncertainty. <i>Journal of Hydrology</i> , 2018, 566, 1-22.	5.4	75
10	Prediction and monitoring of monsoon intraseasonal oscillations over Indian monsoon region in an ensemble prediction system using CFSv2. <i>Climate Dynamics</i> , 2014, 42, 2801-2815.	3.8	66
11	Monsoon Mission: A Targeted Activity to Improve Monsoon Prediction across Scales. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 2509-2532.	3.3	64
12	Objective Identification of Nonlinear Convectively Coupled Phases of Monsoon Intraseasonal Oscillation: Implications for Prediction. <i>Journals of the Atmospheric Sciences</i> , 2008, 65, 1549-1569.	1.7	63
13	Modoki, Indian Ocean Dipole, and western North Pacific typhoons: Possible implications for extreme events. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	57
14	Role of stratiform rainfall in modifying the northward propagation of monsoon intraseasonal oscillation. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	54
15	Aerosol indirect effect during the aberrant Indian Summer Monsoon breaks of 2009. <i>Atmospheric Environment</i> , 2012, 60, 153-163.	4.1	50
16	Simulated changes in active/break spells during the Indian summer monsoon due to enhanced CO2 concentrations: assessment from selected coupled atmosphere-ocean global climate models. <i>International Journal of Climatology</i> , 2007, 27, 837-859.	3.5	49
17	The role of the intra-daily SST variability in the Indian monsoon variability and monsoon-ENSO-IOD relationships in a global coupled model. <i>Climate Dynamics</i> , 2012, 39, 729-754.	3.8	42
18	Teleconnections in recent time and prediction of Indian summer monsoon rainfall. <i>Meteorology and Atmospheric Physics</i> , 2003, 84, 217-227.	2.0	41

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19	High-resolution operational monsoon forecasts: an objective assessment. <i>Climate Dynamics</i> , 2015, 44, 3129-3140.	3.8	40
20	Real time extended range prediction of heat waves over India. <i>Scientific Reports</i> , 2019, 9, 9008.	3.3	38
21	Does bias correction in the forecasted <sc>SST</sc> improve the extended range prediction skill of active/break spells of Indian summer monsoon rainfall?. <i>Atmospheric Science Letters</i> , 2014, 15, 114-119.	1.9	37
22	A self-organizing map-based ensemble forecast system for extended range prediction of active/break cycles of Indian summer monsoon. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 9022-9034.	3.3	35
23	Improved Spread-Error Relationship and Probabilistic Prediction from the CFS-Based Grand Ensemble Prediction System. <i>Journal of Applied Meteorology and Climatology</i> , 2015, 54, 1569-1578.	1.5	34
24	Short to sub-seasonal hydrologic forecast to manage water and agricultural resources in India. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 707-720.	4.9	34
25	Aspect of ECMWF downscaled Regional Climate Modeling in simulating Indian summer monsoon rainfall and dependencies on lateral boundary conditions. <i>Theoretical and Applied Climatology</i> , 2019, 135, 1559-1581.	2.8	31
26	Roles of phosphatidylinositol 3-kinase and osteopontin in steatosis and aminotransferase release by hepatocytes treated with methionine-choline-deficient medium. <i>American Journal of Physiology - Renal Physiology</i> , 2006, 291, G55-G62.	3.4	27
27	Changing Characteristics of Droughts over Kerala, India: Inter-Annual Variability and Trend. <i>Asia-Pacific Journal of Atmospheric Sciences</i> , 2019, 55, 1-17.	2.3	26
28	Possible role of warm SST bias in the simulation of boreal summer monsoon in SINTEX-F2 coupled model. <i>Climate Dynamics</i> , 2012, 38, 1561-1576.	3.8	25
29	A SST based large multi-model ensemble forecasting system for Indian summer monsoon rainfall. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	23
30	Can El Niño-Southern Oscillation (ENSO) events modulate intraseasonal oscillations of Indian summer monsoon?. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	23
31	Moist dynamics of active/break cycle of Indian summer monsoon rainfall from NCEP2 and MERRA reanalysis. <i>International Journal of Climatology</i> , 2014, 34, 1429-1444.	3.5	23
32	Boreal summer intraseasonal oscillations and seasonal Indian monsoon prediction in DEMETER coupled models. <i>Climate Dynamics</i> , 2010, 35, 651-667.	3.8	22
33	Asymmetry in space-time characteristics of Indian summer monsoon intraseasonal oscillations during extreme years: Role of seasonal mean state. <i>International Journal of Climatology</i> , 2015, 35, 1948-1963.	3.5	22
34	An assessment of real-time extended range forecast of 2013 Indian summer monsoon. <i>International Journal of Climatology</i> , 2015, 35, 2860-2876.	3.5	21
35	Real-Time Performance of a Multi-Model Ensemble-Based Extended Range Forecast System in Predicting the 2014 Monsoon Season Based on NCEP-CFSv2. <i>Current Science</i> , 2015, 109, 1802.	0.8	20
36	Assimilation of Doppler Weather Radar Radial Velocity and Reflectivity Observations in WRF-3DVAR System for Short-Range Forecasting of Convective Storms. <i>Pure and Applied Geophysics</i> , 2012, 169, 2047-2070.	1.9	19

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37	Influence of convective parameterization on the systematic errors of Climate Forecast System (CFS) model over the Indian monsoon region from an extended range forecast perspective. <i>Climate Dynamics</i> , 2013, 41, 341-365.	3.8	19
38	Interdecadal Variations in AGCM Simulation Skills. <i>Journal of Climate</i> , 2006, 19, 3406-3419.	3.2	18
39	Development and Evaluation of an Objective Criterion for the Real-Time Prediction of Indian Summer Monsoon Onset in a Coupled Model Framework. <i>Journal of Climate</i> , 2015, 28, 6234-6248.	3.2	18
40	Predictability during active break phases of Indian summer monsoon in an ensemble prediction system using climate forecast system. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2013, 100-101, 13-23.	1.6	17
41	Moisture dynamics of the northward and eastward propagating boreal summer intraseasonal oscillations: possible role of tropical Indo-west Pacific SST and circulation. <i>Climate Dynamics</i> , 2016, 47, 1335-1350.	3.8	17
42	Nonlinearities in the Evolutional Distinctions Between El Niño and La Niña Types. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 9649-9662.	2.6	16
43	Subseasonal Forecasts of the 2018 Indian Summer Monsoon Over Bihar. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 13861-13875.	3.3	16
44	Bay of Bengal Intraseasonal Oscillations and the 2018 Monsoon Onset. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E1936-E1951.	3.3	15
45	Intra-seasonal variability of the South Asian monsoon and its relationship with the Indo-Pacific sea-surface temperature in the NCEP CFSv2. <i>International Journal of Climatology</i> , 2018, 38, e28.	3.5	12
46	Active-Break Transitions of Monsoons Over India as Predicted by Coupled Model Ensembles. <i>Pure and Applied Geophysics</i> , 2020, 177, 4391-4422.	1.9	12
47	Long-Term Trend Analysis of Precipitation and Extreme Events over Kosi River Basin in India. <i>Water (Switzerland)</i> , 2021, 13, 1695.	2.7	12
48	Identification of Drought Occurrences Using Ensemble Predictions up to 20-Days in Advance. <i>Water Resources Management</i> , 2018, 32, 2113-2130.	3.9	11
49	Role of enhanced synoptic activity and its interaction with intra-seasonal oscillations on the lower extended range prediction skill during 2015 monsoon season. <i>Climate Dynamics</i> , 2018, 51, 3435-3446.	3.8	11
50	Dynamical downscaling of a <scp>multimodel</scp> ensemble prediction system: Application to tropical cyclones. <i>Atmospheric Science Letters</i> , 2020, 21, e971.	1.9	11
51	Real-Time Performance of a Multi-Model Ensemble-Based Extended Range Forecast System in Predicting the 2014 Monsoon Season Based on NCEP-CFSv2. <i>Current Science</i> , 2015, 109, 1802.	0.8	11
52	The intraseasonal fluctuation of Indian summer monsoon rainfall and its relation with monsoon intraseasonal oscillation (MISO) and Madden Julian oscillation (MJO). <i>Theoretical and Applied Climatology</i> , 2022, 148, 819-831.	2.8	11
53	Extremes in June rainfall during the Indian summer monsoons of 2013 and 2014: observational analysis and extended-range prediction. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2016, 142, 1276-1289.	2.7	10
54	Skill Evaluation of Extended-Range Forecasts of Rainfall and Temperature over the Meteorological Subdivisions of India. <i>Weather and Forecasting</i> , 2019, 34, 81-101.	1.4	10

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55	A bias-correction and downscaling technique for operational extended range forecasts based on self organizing map. <i>Climate Dynamics</i> , 2017, 48, 2437-2451.	3.8	9
56	A New Approach to Improve the Track Prediction of Tropical Cyclones Over North Indian Ocean. <i>Geophysical Research Letters</i> , 2018, 45, 7781-7789.	4.0	9
57	Seamless Prediction of Monsoon Onset and Active/Break Phases. , 2019, , 421-438.		9
58	On the Epochal Variability in the Frequency of Cyclones during the Pre-Onset and Onset Phases of the Monsoon over the North Indian Ocean. <i>Advances in Atmospheric Sciences</i> , 2020, 37, 634-651.	4.3	9
59	A new method to compute the principal components from self-organizing maps: an application to monsoon intraseasonal oscillations. <i>International Journal of Climatology</i> , 2013, 34, n/a-n/a.	3.5	8
60	Development of a probabilistic early health warning system based on meteorological parameters. <i>Scientific Reports</i> , 2020, 10, 14741.	3.3	8
61	Genesis and track prediction of pre-monsoon cyclonic storms over North Indian Ocean in a multi-model ensemble framework. <i>Natural Hazards</i> , 2019, 95, 823-843.	3.4	7
62	Increasing incidence of Arabian Sea cyclones during the monsoon onset phase: Its impact on the robustness and advancement of Indian summer monsoon. <i>Atmospheric Research</i> , 2022, 267, 105915.	4.1	7
63	On unravelling mechanism of interplay between cloud and large scale circulation: a grey area in climate science. <i>Climate Dynamics</i> , 2019, 52, 1547-1568.	3.8	6
64	An Operational Tracking Method for the MJO Using Extended Empirical Orthogonal Functions. <i>Pure and Applied Geophysics</i> , 2019, 176, 2697-2717.	1.9	6
65	A study on the capability of the NCEP-CFS model in simulating the frequency and intensity of high-intensity rainfall events over Indian region in the high and low resolutions. <i>Modeling Earth Systems and Environment</i> , 2019, 5, 85-100.	3.4	6
66	Impact of Observed Climate Change on the Classification of Agroclimatic Zones in India. <i>Current Science</i> , 2019, 117, 480.	0.8	6
67	Climate Change: A Case Study Over India. <i>Theoretical and Applied Climatology</i> , 1998, 61, 9-18.	2.8	5
68	Diabatic heating profiles over the continental convergence zone during the monsoon active spells. <i>Climate Dynamics</i> , 2013, 41, 205-226.	3.8	5
69	An Improved Cyclogenesis Potential and Storm Evolution Parameter for North Indian Ocean. <i>Earth and Space Science</i> , 2020, 7, e2020EA001209.	2.6	5
70	Large-scale features associated with excess monsoon rainfall over india during 2019 and the real-time extended range forecast. <i>Meteorology and Atmospheric Physics</i> , 2021, 133, 1275-1297.	2.0	5
71	Hydraulic response of a tidally forced coastal aquifer, Pontal do ParanÃj, Brazil. <i>Hydrogeology Journal</i> , 2008, 16, 1427-1439.	2.1	4
72	The relationship between the daily dominant monsoon modes of South Asia and SST. <i>Theoretical and Applied Climatology</i> , 2020, 142, 59-70.	2.8	4

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73	Revamping extended range forecast of Indian summer monsoon. <i>Climate Dynamics</i> , 2020, 55, 3397-3411.	3.8	4
74	Role of initial error growth in the extended range prediction skill of Madden-Julian Oscillation (MJO). <i>Theoretical and Applied Climatology</i> , 0, , 1.	2.8	4
75	Why are the Indian monsoon transients short-lived and less intensified during droughts vis-à-vis good monsoon years? An inspection through scale interactive energy exchanges in frequency domain. <i>International Journal of Climatology</i> , 2016, 36, 2958-2978.	3.5	3
76	Twin tropical cyclones in the Indian Ocean: the role of equatorial waves. <i>Natural Hazards</i> , 2016, 84, 2211-2224.	3.4	3
77	Potential predictability of wet/dry spells transitions during extreme monsoon years: optimism for dynamical extended range prediction. <i>Natural Hazards</i> , 2017, 88, 853-865.	3.4	3
78	Simulation of monsoon intra-seasonal oscillations in Geophysical Fluid Dynamics Laboratory models from Atmospheric Model Intercomparison Project integrations of Coupled Model Intercomparison Project phase 5. <i>International Journal of Climatology</i> , 2020, 40, 5574-5589.	3.5	3
79	Value addition to forecasting: towards Kharif rice crop predictability through local climate variations associated with Indo-Pacific climate drivers. <i>Theoretical and Applied Climatology</i> , 2021, 144, 917-929.	2.8	3
80	Kharif rice yield prediction over Gangetic West Bengal using IITM-IMD extended range forecast products. <i>Theoretical and Applied Climatology</i> , 2021, 145, 1089-1100.	2.8	3
81	Multi-physics schema for sub-seasonal prediction of Indian summer monsoon. <i>Climate Dynamics</i> , 2022, 58, 669-690.	3.8	3
82	Recent changes in the spatio-temporal characteristics of monsoon intraseasonal oscillations. <i>Theoretical and Applied Climatology</i> , 2022, 147, 251-264.	2.8	3
83	MJO Prediction Skill Using IITM Extended Range Prediction System and Comparison with ECMWF S2S. <i>Pure and Applied Geophysics</i> , 2020, 177, 5067-5079.	1.9	2
84	Northward propagation of convection over Arabian Sea and Bay of Bengal: a perspective from vorticity equation. <i>Climate Dynamics</i> , 2022, 59, 2751-2767.	3.8	2
85	Eddy transport, Wave-mean flow interaction, and Eddy forcing during the 2013 Uttarakhand Extreme Event in the Reanalysis and S2S Retrospective Forecast Data. <i>International Journal of Climatology</i> , 0, , .	3.5	2
86	Thermosolutal Convection in the Presence of Both Vertical and Horizontal Temperature Gradients. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1999, 66, 181-196.	2.2	1
87	Improved performance of multi-model ensemble through the bias correction based on ANN technique. , 2016, , .		1
88	Prediction and error growth in the daily forecast of precipitation from the NCEP CFSv2 over the subdivisions of Indian subcontinent. <i>Journal of Earth System Science</i> , 2016, 125, 29-45.	1.3	1
89	Climatological patterns of subseasonal eddy flux transfer based on the co-spectral analysis over the Indian region and the derivation of an index of eddy transfer for operational tracking. <i>International Journal of Climatology</i> , 2021, 41, E1906.	3.5	1
90	Prediction of dominant daily modes of the Indian summer monsoon in the NCEP GFS model. <i>Meteorology and Atmospheric Physics</i> , 2021, 133, 1009-1027.	2.0	1

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91	Profiling and scalability of the high resolution NCEP model for weather and climate simulations. , 2012, , .		0
92	Predictability of Indian Monsoon Circulation with High Resolution ECMWF Model in the Perspective of Tropical Forecast During the Tropical Convection Year 2008. Pure and Applied Geophysics, 2013, 170, 2351-2368.	1.9	0
93	Was the earliest documented account of tornado dynamics published by an Indian scientist in an Indian journal?. Weather, 2020, 75, 120-123.	0.7	0