

# Gautam Bisht

## List of Publications by Year in descending order

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Version: 2024-02-01

37  
papers

2,863  
citations

361413

20  
h-index

330143

37  
g-index

63  
all docs

63  
docs citations

63  
times ranked

4317  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Community Land Model Version 5: Description of New Features, Benchmarking, and Impact of Forcing Uncertainty. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 4245-4287.	3.8	692
2	The DOE E3SM Coupled Model Version 1: Overview and Evaluation at Standard Resolution. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2089-2129.	3.8	404
3	Estimation of the net radiation using MODIS (Moderate Resolution Imaging Spectroradiometer) data for clear sky days. <i>Remote Sensing of Environment</i> , 2005, 97, 52-67.	11.0	296
4	Estimation and comparison of evapotranspiration from MODIS and AVHRR sensors for clear sky days over the Southern Great Plains. <i>Remote Sensing of Environment</i> , 2006, 103, 1-15.	11.0	176
5	Estimation of net radiation from the MODIS data under all sky conditions: Southern Great Plains case study. <i>Remote Sensing of Environment</i> , 2010, 114, 1522-1534.	11.0	173
6	Impact of deforestation in the Amazon basin on cloud climatology. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 3670-3674.	7.1	143
7	Comparison of evaporative fractions estimated from AVHRR and MODIS sensors over South Florida. <i>Remote Sensing of Environment</i> , 2004, 93, 77-86.	11.0	97
8	Representing Nitrogen, Phosphorus, and Carbon Interactions in the E3SM Land Model: Development and Global Benchmarking. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2238-2258.	3.8	74
9	Vegetation controls on soil moisture distribution in the Valles Caldera, New Mexico, during the North American monsoon. <i>Ecohydrology</i> , 2008, 1, 225-238.	2.4	66
10	Representing northern peatland microtopography and hydrology within the Community Land Model. <i>Biogeosciences</i> , 2015, 12, 6463-6477.	3.3	66
11	The DOE E3SM v1.1 Biogeochemistry Configuration: Description and Simulated Ecosystem Climate Responses to Historical Changes in Forcing. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001766.	3.8	65
12	Precipitation Variability over the Forest-to-Nonforest Transition in Southwestern Amazonia. <i>Journal of Climate</i> , 2011, 24, 2368-2377.	3.2	53
13	Estimation of Net Radiation From the Moderate Resolution Imaging Spectroradiometer Over the Continental United States. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2011, 49, 2448-2462.	6.3	46
14	A parameterization of sub-grid topographical effects on solar radiation in the E3SM Land Model (version 1.0): implementation and evaluation over the Tibetan Plateau. <i>Geoscientific Model Development</i> , 2021, 14, 6273-6289.	3.6	36
15	Modeling the spatiotemporal variability in subsurface thermal regimes across a low-relief polygonal tundra landscape. <i>Cryosphere</i> , 2016, 10, 2241-2274.	3.9	29
16	Improving Representation of Deforestation Effects on Evapotranspiration in the E3SM Land Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2412-2427.	3.8	28
17	Impact of Intra-meander Hyporheic Flow on Nitrogen Cycling. <i>Procedia Earth and Planetary Science</i> , 2017, 17, 404-407.	0.6	26
18	Coupling a three-dimensional subsurface flow and transport model with a land surface model to simulate stream-aquifer-land interactions (CPv1.0). <i>Geoscientific Model Development</i> , 2017, 10, 4539-4562.	3.6	25

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19	A reduced-order modeling approach to represent subgrid-scale hydrological dynamics for land-surface simulations: application in a polygonal tundra landscape. <i>Geoscientific Model Development</i> , 2014, 7, 2091-2105.	3.6	22
20	Development and evaluation of a variably saturated flow model in the global E3SM Land Model (ELM) version 1.0. <i>Geoscientific Model Development</i> , 2018, 11, 4085-4102.	3.6	22
21	Breaking Down the Computational Barriers to Real-time Urban Flood Forecasting. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093585.	4.0	21
22	Root lateral interactions drive water uptake patterns under water limitation. <i>Advances in Water Resources</i> , 2021, 151, 103896.	3.8	20
23	Validation of the Community Land Model Version 5 Over the Contiguous United States (CONUS) Using In Situ and Remote Sensing Data Sets. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033539.	3.3	19
24	A comparison among different modified Priestley and Taylor equations to calculate actual evapotranspiration with MODIS data. <i>International Journal of Remote Sensing</i> , 2011, 32, 1319-1338.	2.9	17
25	Impacts of microtopographic snow redistribution and lateral subsurface processes on hydrologic and thermal states in an Arctic polygonal ground ecosystem: a case study using ELM-3D v1.0. <i>Geoscientific Model Development</i> , 2018, 11, 61-76.	3.6	17
26	Effects of Irrigation on Water, Carbon, and Nitrogen Budgets in a Semiarid Watershed in the Pacific Northwest: A Modeling Study. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001953.	3.8	15
27	Coupling surface flow with high-performance subsurface reactive flow and transport code PFLOTRAN. <i>Environmental Modelling and Software</i> , 2021, 137, 104959.	4.5	15
28	Addressing numerical challenges in introducing a reactive transport code into a land surface model: a biogeochemical modeling proof-of-concept with CLM-PFLOTRAN 1.0. <i>Geoscientific Model Development</i> , 2016, 9, 927-946.	3.6	14
29	Impacts of Sub-Grid Topographic Representations on Surface Energy Balance and Boundary Conditions in the E3SM Land Model: A Case Study in Sierra Nevada. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	3.8	14
30	Advances in hexagon mesh-based flow direction modeling. <i>Advances in Water Resources</i> , 2022, 160, 104099.	3.8	9
31	A Hybrid Reduced-Order Model of Fine-Resolution Hydrologic Simulations at a Polygonal Tundra Site. <i>Vadose Zone Journal</i> , 2016, 15, 1-14.	2.2	8
32	Modeling the Joint Effects of Vegetation Characteristics and Soil Properties on Ecosystem Dynamics in a Panama Tropical Forest. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	3.8	8
33	Spatial and temporal variations of thaw layer thickness and its controlling factors identified using time-lapse electrical resistivity tomography and hydro-thermal modeling. <i>Journal of Hydrology</i> , 2018, 561, 751-763.	5.4	6
34	Impact of Vegetation Physiology and Phenology on Watershed Hydrology in a Semiarid Watershed in the Pacific Northwest in a Changing Climate. <i>Water Resources Research</i> , 2021, 57, e2020WR028394.	4.2	6
35	Development and Verification of a Numerical Library for Solving Global Terrestrial Multiphysics Problems. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 1516-1542.	3.8	5
36	Spatial heterogeneity effects on land surface modeling of water and energy partitioning. <i>Geoscientific Model Development</i> , 2022, 15, 5489-5510.	3.6	4

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37	Using a surrogate-assisted Bayesian framework to calibrate the runoff-generation scheme in the Energy Exascale Earth System Model (E3SM) v1. <i>Geoscientific Model Development</i> , 2022, 15, 5021-5043.	3.6	3