Gautam Bisht

List of Publications by Year
in descending order

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	Advances in hexagon mesh-based flow direction modeling. Advances in Water Resources, 2022, 160, 104099.	3.8	9
2	Modeling the Joint Effects of Vegetation Characteristics and Soil Properties on Ecosystem Dynamics in a Panama Tropical Forest. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	8
3	Impacts of Sub€Grid Topographic Representations on Surface Energy Balance and Boundary Conditions in the E3SM Land Model: A Case Study in Sierra Nevada. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	14
4	Spatial heterogeneity effects on land surface modeling of water and energy partitioning. Geoscientific Model Development, 2022, 15, 5489-5510.	3.6	4
5	Using a surrogate-assisted Bayesian framework to calibrate the runoff-generation scheme in the Energy Exascale Earth System Model (E3SM) v1. Geoscientific Model Development, 2022, 15, 5021-5043.	3.6	3
6	Impact of Vegetation Physiology and Phenology on Watershed Hydrology in a Semiarid Watershed in the Pacific Northwest in a Changing Climate. Water Resources Research, 2021, 57, e2020WR028394.	4.2	6
7	Coupling surface flow with high-performance subsurface reactive flow and transport code PFLOTRAN. Environmental Modelling and Software, 2021, 137, 104959.	4.5	15
8	Validation of the Community Land Model Version 5 Over the Contiguous United States (CONUS) Using In Situ and Remote Sensing Data Sets. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033539.	3.3	19
9	Root lateral interactions drive water uptake patterns under water limitation. Advances in Water Resources, 2021, 151, 103896.	3.8	20
10	Breaking Down the Computational Barriers to Real€Time Urban Flood Forecasting. Geophysical Research Letters, 2021, 48, e2021GL093585.	4.0	21
11	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. Geoscientific Model Development, 2021, 14, 6273-6289.	3.6	36
12	The DOE E3SM v1.1 Biogeochemistry Configuration: Description and Simulated Ecosystem€Climate Responses to Historical Changes in Forcing. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001766.	3.8	65
13	Effects of Irrigation on Water, Carbon, and Nitrogen Budgets in a Semiarid Watershed in the Pacific Northwest: A Modeling Study. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001953.	3.8	15
14	Development and Verification of a Numerical Library for Solving Global Terrestrial Multiphysics Problems. Journal of Advances in Modeling Earth Systems, 2019, 11, 1516-1542.	3.8	5
15	The Community Land Model Version 5: Description of New Features, Benchmarking, and Impact of Forcing Uncertainty. Journal of Advances in Modeling Earth Systems, 2019, 11, 4245-4287.	3.8	692
16	Improving Representation of Deforestation Effects on Evapotranspiration in the E3SM Land Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 2412-2427.	3.8	28
17	Representing Nitrogen, Phosphorus, and Carbon Interactions in the E3SM Land Model: Development and Global Benchmarking. Journal of Advances in Modeling Earth Systems, 2019, 11, 2238-2258.	3.8	74
18	The DOE E3SM Coupled Model Version 1: Overview and Evaluation at Standard Resolution. Journal of Advances in Modeling Earth Systems, 2019, 11, 2089-2129.	3.8	404

#	Article	IF	Citations
19	Development and evaluation of a variably saturated flow model in the global E3SM Land Model (ELM) version 1.0. Geoscientific Model Development, 2018, 11, 4085-4102.	3.6	22
20	Spatial and temporal variations of thaw layer thickness and its controlling factors identified using time-lapse electrical resistivity tomography and hydro-thermal modeling. Journal of Hydrology, 2018, 561, 751-763.	5.4	6
21	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. Geoscientific Model Development, 2018, 11, 61-76.	3.6	17
22	Impact of Intra-meander Hyporheic Flow on Nitrogen Cycling. Procedia Earth and Planetary Science, 2017, 17, 404-407.	0.6	26
23	Coupling a three-dimensional subsurface flow and transport model with a land surface model to simulate streamâ€"aquiferâ€"land interactions (CPÂv1.0). Geoscientific Model Development, 2017, 10, 4539-4562.	3.6	25
24	Addressing numerical challenges in introducing a reactive transport code into a land surface model: a biogeochemical modeling proof-of-concept with CLMâ€"PFLOTRAN 1.0. Geoscientific Model Development, 2016, 9, 927-946.	3.6	14
25	Modeling the spatiotemporal variability in subsurface thermal regimes across a low-relief polygonal tundra landscape. Cryosphere, 2016, 10, 2241-2274.	3.9	29
26	A Hybrid Reducedâ€"Order Model of Fineâ€"Resolution Hydrologic Simulations at a Polygonal Tundra Site. Vadose Zone Journal, 2016, 15, 1-14.	2.2	8
27	Representing northern peatland microtopography and hydrology within the Community Land Model. Biogeosciences, 2015, 12, 6463-6477.	3.3	66
28	A reduced-order modeling approach to represent subgrid-scale hydrological dynamics for land-surface simulations: application in a polygonal tundra landscape. Geoscientific Model Development, 2014, 7, 2091-2105.	3.6	22
29	Estimation of Net Radiation From the Moderate Resolution Imaging Spectroradiometer Over the Continental United States. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 2448-2462.	6.3	46
30	A comparison among different modified Priestley and Taylor equations to calculate actual evapotranspiration with MODIS data. International Journal of Remote Sensing, 2011, 32, 1319-1338.	2.9	17
31	Precipitation Variability over the Forest-to-Nonforest Transition in Southwestern Amazonia. Journal of Climate, 2011, 24, 2368-2377.	3.2	53
32	Estimation of net radiation from the MODIS data under all sky conditions: Southern Great Plains case study. Remote Sensing of Environment, 2010, 114, 1522-1534.	11.0	173
33	Impact of deforestation in the Amazon basin on cloud climatology. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3670-3674.	7.1	143
34	Vegetation controls on soil moisture distribution in the Valles Caldera, New Mexico, during the North American monsoon. Ecohydrology, 2008, 1, 225-238.	2.4	66
35	Estimation and comparison of evapotranspiration from MODIS and AVHRR sensors for clear sky days over the Southern Great Plains. Remote Sensing of Environment, 2006, 103, 1-15.	11.0	176
36	Estimation of the net radiation using MODIS (Moderate Resolution Imaging Spectroradiometer) data for clear sky days. Remote Sensing of Environment, 2005, 97, 52-67.	11.0	296

#	ARTICLE	IF	CITATIONS
37	Comparison of evaporative fractions estimated from AVHRR and MODIS sensors over South Florida. Remote Sensing of Environment, 2004, 93, 77-86.	11.0	97