David Bosch

List of Publications by Year
in descending order

61 papers	4,555 citations	159585 30 h-index	128289 60 g-index
61 all docs	61 docs citations	61 times ranked	3756 citing authors

#	Article	IF	Citations
1	Regularized Dual-Channel Algorithm for the Retrieval of Soil Moisture and Vegetation Optical Depth From SMAP Measurements. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 102-114.	4.9	13
2	Validation of Soil Moisture Data Products From the NASA SMAP Mission. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 364-392.	4.9	62
3	Thermal Hydraulic Disaggregation of SMAP Soil Moisture Over the Continental United States. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 4072-4092.	4.9	6
4	Long term agroecosystem research experimental watershed network. Hydrological Processes, 2022, 36, .	2.6	1
5	Pâ€FLUX: A phosphorus budget dataset spanning diverse agricultural production systems in the United States and Canada. Journal of Environmental Quality, 2022, 51, 451-461.	2.0	4
6	Multi-frequency radiometer-based soil moisture retrieval and algorithm parameterization using in situ sites. Remote Sensing of Environment, 2022, 279, 113113.	11.0	6
7	The USDAâ€ARS Experimental Watershed Network: Evolution, Lessons Learned, Societal Benefits, and Moving Forward. Water Resources Research, 2021, 57, e2019WR026473.	4.2	11
8	Assessing hydrologic and water quality effects of land use conversion to Brassica carinata as a winter biofuel crop in the southeastern coastal plain of Georgia, USA using the SWAT model. GCB Bioenergy, 2021, 13, 473-492.	5.6	10
9	Responses to environmental variability by herbivorous insects and their natural enemies within a bioenergy crop, Miscanthus x giganteus. PLoS ONE, 2021, 16, e0246855.	2.5	2
10	Little River Experimental Watershed, a keystone in understanding of coastal plain watersheds. Hydrological Processes, 2021, 35, e14334.	2.6	2
11	Evaluation of SMAP Core Validation Site Representativeness Errors Using Dense Networks of In Situ Sensors and Random Forests. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 6457-6472.	4.9	6
12	A New Physically-Based Spatially-Distributed Groundwater Flow Module for SWAT+. Hydrology, 2020, 7, 75.	3.0	19
13	Water quality and land cover in the Coastal Plain Little River watershed, Georgia, United States. Journal of Soils and Water Conservation, 2020, 75, 263-277.	1.6	11
14	Comparative analysis of water budgets across the U.S. long-term agroecosystem research network. Journal of Hydrology, 2020, 588, 125021.	5.4	24
15	Riparian land cover and hydrology influence stream dissolved organic matter composition in an agricultural watershed. Science of the Total Environment, 2020, 717, 137165.	8.0	35
16	Method to Evaluate the Age of Groundwater Inputs to Surface Waters by Determining the Chirality Change of Metolachlor Ethanesulfonic Acid (MESA) Captured on a Polar Organic Chemical Integrative Sampler (POCIS). Journal of Agricultural and Food Chemistry, 2020, 68, 2297-2305.	5.2	5
17	Improved SMAP Dual-Channel Algorithm for the Retrieval of Soil Moisture. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 3894-3905.	6.3	62
18	Comparison of microwave remote sensing and land surface modeling for surface soil moisture climatology estimation. Remote Sensing of Environment, 2020, 242, 111756.	11.0	73

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19	Assessing the Impact of Soil Layer Depth Specification on the Observability of Modeled Soil Moisture and Brightness Temperature. Journal of Hydrometeorology, 2020, 21, 2041-2060.	1.9	9
20	Uncertainty of Reference Pixel Soil Moisture Averages Sampled at SMAP Core Validation Sites. Journal of Hydrometeorology, 2019, 20, 1553-1569.	1.9	24
21	Vegetationâ€“soil moisture coupling metrics from dual-polarization microwave radiometry using regularization. Remote Sensing of Environment, 2019, 231, 111257.	11.0	11
22	Version 4 of the SMAP Levelâ€4 Soil Moisture Algorithm and Data Product. Journal of Advances in Modeling Earth Systems, 2019, 11, 3106-3130.	3.8	104
23	The SMAP and Copernicus Sentinel 1A/B microwave active-passive high resolution surface soil moisture product. Remote Sensing of Environment, 2019, 233, 111380.	11.0	175
24	Seasonal Dependence of SMAP Radiometer-Based Soil Moisture Performance as Observed Over Core Validation Sites. , 2019, , .		5
25	Representing the Connectivity of Upland Areas to Floodplains and Streams in SWAT+. Journal of the American Water Resources Association, 2019, 55, 578-590.	2.4	36
26	GCOM-W AMSR2 Soil Moisture Product Validation Using Core Validation Sites. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 209-219.	4.9	44
27	The SMAP mission combined active-passive soil moisture product at 9â€¯km and 3â€¯km spatial resolutions. Remote Sensing of Environment, 2018, 211, 204-217.	11.0	59
28	Development and assessment of the SMAP enhanced passive soil moisture product. Remote Sensing of Environment, 2018, 204, 931-941.	11.0	297
29	Application of Triple Collocation in Ground-Based Validation of Soil Moisture Active/Passive (SMAP) Level 2 Data Products. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 489-502.	4.9	115
30	Validation of SMAP surface soil moisture products with core validation sites. Remote Sensing of Environment, 2017, 191, 215-231.	11.0	503
31	Sediment-bound total organic carbon and total organic nitrogen losses from conventional and strip tillage cropping systems. Soil and Tillage Research, 2017, 171, 25-34.	5.6	17
32	Introduction to <scp>SWAT</scp>+, A Completely Restructured Version of the Soil and Water Assessment Tool. Journal of the American Water Resources Association, 2017, 53, 115-130.	2.4	205
33	Nonparametric triple collocation. Water Resources Research, 2017, 53, 5516-5530.	4.2	9
34	Temporal variations in baseflow for the Little River experimental watershed in South Georgia, USA. Journal of Hydrology: Regional Studies, 2017, 10, 110-121.	2.4	36
35	Assessment of the SMAP Level-4 Surface and Root-Zone Soil Moisture Product Using In Situ Measurements. Journal of Hydrometeorology, 2017, 18, 2621-2645.	1.9	196
36	SMAP soil moisture drying more rapid than observed in situ following rainfall events. Geophysical Research Letters, 2016, 43, 8068-8075.	4.0	84

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37	Assessment of the SMAP Passive Soil Moisture Product. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 4994-5007.	6.3	460
38	Fecal bacterial losses in runoff from conventional and no-till pearl millet fertilized with broiler litter. Agricultural Water Management, 2014, 134, 38-41.	5.6	3
39	Comparative assessment of herbicide and fungicide runoff risk: A case study for peanut production in the Southern Atlantic Coastal Plain (USA). Science of the Total Environment, 2014, 490, 1-10.	8.0	23
40	Forest transpiration from sap flux density measurements in a Southeastern Coastal Plain riparian buffer system. Agricultural and Forest Meteorology, 2014, 187, 72-82.	4.8	56
41	Extreme precipitation patterns and reductions of terrestrial ecosystem production across biomes. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 148-157.	3.0	74
42	Tillage and slope position impact on field-scale hydrologic processes in the South Atlantic Coastal Plain. Agricultural Water Management, 2012, 111, 40-52.	5.6	33
43	Validation of Soil Moisture and Ocean Salinity (SMOS) Soil Moisture Over Watershed Networks in the U.S.. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 1530-1543.	6.3	313
44	Nutrient losses in runoff from conventional and no-till pearl millet on pre-wetted Ultisols fertilized with broiler litter. Agricultural Water Management, 2012, 113, 38-44.	5.6	15
45	Results of rainfall simulation to estimate sediment-bound carbon and nitrogen loss from an Atlantic Coastal Plain (USA) ultisol. Soil and Tillage Research, 2012, 122, 12-21.	5.6	15
46	Tillage, Cover-Crop Residue Management, and Irrigation Incorporation Impact on Fomesafen Runoff. Journal of Agricultural and Food Chemistry, 2011, 59, 7910-7915.	5.2	17
47	Antecedent water content effects on runoff and sediment yields from two Coastal Plain Ultisols. Agricultural Water Management, 2011, 98, 1189-1196.	5.6	34
48	Validation of Advanced Microwave Scanning Radiometer Soil Moisture Products. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 4256-4272.	6.3	489
49	Effects of Sampling Interval on Spatial Patterns and Statistics of Watershed Nitrogen Concentration. GIScience and Remote Sensing, 2009, 46, 172-186.	5.9	5
50	Calibration and uncertainty analysis of the SWAT model using Genetic Algorithms and Bayesian Model Averaging. Journal of Hydrology, 2009, 374, 307-317.	5.4	187
51	Land Use/Land Cover and Soil Type Covariation in a Heterogeneous Landscape for Soil Moisture Studies Using Point Data. GIScience and Remote Sensing, 2009, 46, 77-100.	5.9	9
52	Remote sensing observatory validation of surface soil moisture using Advanced Microwave Scanning Radiometer E, Common Land Model, and ground based data: Case study in SMEX03 Little River Region, Georgia, U.S.. Water Resources Research, 2008, 44, .	4.2	26
53	Quantifying relative contributions from sediment sources in Conservation Effects Assessment Project watersheds. Journal of Soils and Water Conservation, 2008, 63, 523-532.	1.6	109
54	Long-term stream chemistry trends in the southern Georgia Little River Experimental Watershed. Journal of Soils and Water Conservation, 2008, 63, 475-486.	1.6	19

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55	Herbicide Incorporation by Irrigation and Tillage Impact on Runoff Loss. Journal of Environmental Quality, 2008, 37, 839-847.	2.0	32
56	Measuring Surface Roughness Height to Parameterize Radar Backscatter Models for Retrieval of Surface Soil Moisture. IEEE Geoscience and Remote Sensing Letters, 2007, 4, 137-141.	3.1	76
57	Little River Experimental Watershed, Tifton, Georgia, United States: A geographic database. Water Resources Research, 2007, 43, .	4.2	16
58	Variable Rainfall Intensity and Tillage Effects on Runoff, Sediment, and Carbon Losses from a Loamy Sand under Simulated Rainfall. Journal of Environmental Quality, 2007, 36, 1495-1502.	2.0	63
59	Large scale measurements of soil moisture for validation of remotely sensed data: Georgia soil moisture experiment of 2003. Journal of Hydrology, 2006, 323, 120-137.	5.4	99
60	Polarimetric scanning radiometer C- and X-band microwave observations during SMEX03. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 2418-2430.	6.3	75
61	Fluometuron and Pendimethalin Runoff from Strip and Conventionally Tilled Cotton in the Southern Atlantic Coastal Plain. Journal of Environmental Quality, 2004, 33, 2122-2131.	2.0	26