Michel Bechtold

List of Publications by Year
in descending order

35 papers	**1,236** citations	394421 **19** h-index	377865 **34** g-index
60 all docs	**60** docs citations	**60** times ranked	**1931** citing authors

#	Article	IF	Citations
1	Expert assessment of future vulnerability of the global peatland carbon sink. Nature Climate Change, 2021, 11, 70-77.	18.8	167
2	High emissions of greenhouse gases from grasslands on peat and other organic soils. Global Change Biology, 2016, 22, 4134-4149.	9.5	144
3	A new methodology for organic soils in national greenhouse gas inventories: Data synthesis, derivation and application. Ecological Indicators, 2020, 109, 105838.	6.3	84
4	On the applicability of unimodal and bimodal van Genuchten–Mualem based models to peat and other organic soils under evaporation conditions. Journal of Hydrology, 2014, 515, 103-115.	5.4	62
5	Does water repellency of pyrochars and hydrochars counter their positive effects on soil hydraulic properties?. Geoderma, 2015, 245-246, 31-39.	5.1	60
6	Using boosted regression trees to explore key factors controlling saturated and near-saturated hydraulic conductivity. European Journal of Soil Science, 2015, 66, 744-756.	3.9	59
7	Efficient random walk particle tracking algorithm for advective-dispersive transport in media with discontinuous dispersion coefficients and water contents. Water Resources Research, 2011, 47, .	4.2	58
8	Infiltration from the Pedon to Global Grid Scales: An Overview and Outlook for Land Surface Modeling. Vadose Zone Journal, 2019, 18, 1-53.	2.2	56
9	Estimation of Soil Hydraulic Parameters in the Field by Integrated Hydrogeophysical Inversion of Time-Lapse Ground-Penetrating Radar Data. Vadose Zone Journal, 2012, 11, vzj2011.0177.	2.2	40
10	PEAT-CLSM: A Specific Treatment of Peatland Hydrology in the NASA Catchment Land Surface Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 2130-2162.	3.8	40
11	Mapping peat layer properties with multi-coil offset electromagnetic induction and laser scanning elevation data. Geoderma, 2016, 261, 178-189.	5.1	36
12	Inferring Water Table Depth Dynamics from ENVISAT-ASAR C-Band Backscatter over a Range of Peatlands from Deeply-Drained to Natural Conditions. Remote Sensing, 2018, 10, 536.	4.0	34
13	Large-scale regionalization of water table depth in peatlands optimized for greenhouse gas emission upscaling. Hydrology and Earth System Sciences, 2014, 18, 3319-3339.	4.9	27
14	Near-surface solute redistribution during evaporation. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	26
15	Water Flow Monitored by Tracer Transport in Natural Porous Media Using Magnetic Resonance Imaging. Vadose Zone Journal, 2010, 9, 835-845.	2.2	25
16	Drained organic soils under agriculture — The more degraded the soil the higher the specific basal respiration. Geoderma, 2019, 355, 113911.	5.1	25
17	On the Potential of Sentinel-1 for High Resolution Monitoring of Water Table Dynamics in Grasslands on Organic Soils. Remote Sensing, 2019, 11, 1659.	4.0	24
18	Deriving Effective Soil Water Retention Characteristics from Shallow Water Table Fluctuations in Peatlands. Vadose Zone Journal, 2016, 15, 1-13.	2.2	23

#	Article	IF	Citations
19	Constraints on the active tectonics of the Friuli/NW Slovenia area from CGPS measurements and three‐dimensional kinematic modeling. Journal of Geophysical Research, 2009, 114, .	3.3	20
20	One‐dimensional expression to calculate specific yield for shallow groundwater systems with microrelief. Hydrological Processes, 2016, 30, 334-340.	2.6	19
21	Improved groundwater table and L-band brightness temperature estimates for Northern Hemisphere peatlands using new model physics and SMOS observations in a global data assimilation framework. Remote Sensing of Environment, 2020, 246, 111805.	11.0	19
22	Upward Transport in a Three‐Dimensional Heterogeneous Laboratory Soil under Evaporation Conditions. Vadose Zone Journal, 2012, 11, vzj2011.0066.	2.2	18
23	Solute Transport in Heterogeneous Soil with Time‐Dependent Boundary Conditions. Vadose Zone Journal, 2016, 15, 1-17.	2.2	18
24	Effect of past peat cultivation practices on present dynamics of dissolved organic carbon. Science of the Total Environment, 2017, 574, 1243-1253.	8.0	17
25	Satellite Determination of Peatland Water Table Temporal Dynamics by Localizing Representative Pixels of A SWIR-Based Moisture Index. Remote Sensing, 2020, 12, 2936.	4.0	16
26	Trench investigation on the main strand of the Boconó fault in its central section, at Mesa del Caballo, Mérida Andes, Venezuela. Tectonophysics, 2008, 459, 38-53.	2.2	15
27	Advancing Global and Regional Reanalyses. Bulletin of the American Meteorological Society, 2018, 99, ES139-ES144.	3.3	15
28	Evaluating Commercial Moisture Probes in Reference Solutions Covering Mineral to Peat Soil Conditions. Vadose Zone Journal, 2018, 17, 170208.	2.2	14
29	A Comparison of Three Trapezoid Models Using Optical and Thermal Satellite Imagery for Water Table Depth Monitoring in Estonian Bogs. Remote Sensing, 2020, 12, 1980.	4.0	14
30	Accurate Determination of the Bulk Electrical Conductivity with the TDR100 Cable Tester. Soil Science Society of America Journal, 2010, 74, 495-501.	2.2	12
31	Evaporation experiments for the determination of hydraulic properties of peat and other organic soils: An evaluation of methods based on a large dataset. Journal of Hydrology, 2019, 575, 933-944.	5.4	12
32	Comparing Methods for Measuring Water Retention of Peat Near Permanent Wilting Point. Soil Science Society of America Journal, 2018, 82, 601-605.	2.2	11
33	Tropical Peatland Hydrology Simulated With a Global Land Surface Model. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	9
34	Towards Monitoring Groundwater Table Depth in Peatlands from Sentinel-1 Radar Data. , 2018, , .		1
35	Accounting for Static and Dynamic Open Water in the Modeling of SMAP Brightness Temperatures Over Peatlands. , 2018, , .		0