

Michael Herbst

List of Publications by Year in descending order

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29
papers

1,482
citations

471061

17
h-index

454577

30
g-index

39
all docs

39
docs citations

39
times ranked

2244
citing authors

#	ARTICLE	IF	CITATIONS
1	On the spatio-temporal dynamics of soil moisture at the field scale. <i>Journal of Hydrology</i> , 2014, 516, 76-96.	2.3	369
2	Pedotransfer Functions in Earth System Science: Challenges and Perspectives. <i>Reviews of Geophysics</i> , 2017, 55, 1199-1256.	9.0	316
3	A global data set of soil hydraulic properties and sub-grid variability of soil water retention and hydraulic conductivity curves. <i>Earth System Science Data</i> , 2017, 9, 529-543.	3.7	99
4	Inverse modelling of in situ soil water dynamics: investigating the effect of different prior distributions of the soil hydraulic parameters. <i>Hydrology and Earth System Sciences</i> , 2011, 15, 3043-3059.	1.9	94
5	Linking satellite derived LAI patterns with subsoil heterogeneity using large-scale ground-based electromagnetic induction measurements. <i>Geoderma</i> , 2015, 241-242, 262-271.	2.3	73
6	Multiyear heterotrophic soil respiration: Evaluation of a coupled CO ₂ transport and carbon turnover model. <i>Ecological Modelling</i> , 2008, 214, 271-283.	1.2	64
7	Infiltration from the Pedon to Global Grid Scales: An Overview and Outlook for Land Surface Modeling. <i>Vadose Zone Journal</i> , 2019, 18, 1-53.	1.3	56
8	Simple pedotransfer functions to initialize reactive carbon pools of the <sc>RothC</sc> model. <i>European Journal of Soil Science</i> , 2013, 64, 567-575.	1.8	43
9	Inverse determination of heterotrophic soil respiration response to temperature and water content under field conditions. <i>Biogeochemistry</i> , 2012, 108, 119-134.	1.7	39
10	Intercomparison of Flow and Transport Models Applied to Vertical Drainage in Cropped Lysimeters. <i>Vadose Zone Journal</i> , 2005, 4, 354-359.	1.3	33
11	Information content of incubation experiments for inverse estimation of pools in the Rothamsted carbon model: a Bayesian perspective. <i>Biogeosciences</i> , 2010, 7, 763-776.	1.3	32
12	Simulation of spatial variability in crop leaf area index and yield using agroecosystem modeling and geophysics-based quantitative soil information. <i>Vadose Zone Journal</i> , 2020, 19, e20009.	1.3	29
13	Meta-analysis of field scale spatial variability of grassland soil CO ₂ efflux: Interaction of biotic and abiotic drivers. <i>Catena</i> , 2016, 143, 78-89.	2.2	24
14	Multi-site calibration and validation of a net ecosystem carbon exchange model for croplands. <i>Ecological Modelling</i> , 2017, 363, 137-156.	1.2	23
15	Choice of Pedotransfer Functions Matters when Simulating Soil Water Balance Fluxes. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002404.	1.3	22
16	Multistep Outflow Experiments to Determine Soil Physical and Carbon Dioxide Production Parameters. <i>Vadose Zone Journal</i> , 2009, 8, 772-782.	1.3	22
17	A model study on the effect of water and cold stress on maize development under nemoral climate. <i>Agricultural and Forest Meteorology</i> , 2018, 263, 169-179.	1.9	21
18	Crop growth and soil water fluxes at erosion-affected arable sites: Using weighing lysimeter data for model intercomparison. <i>Vadose Zone Journal</i> , 2020, 19, e20058.	1.3	17

#	ARTICLE	IF	CITATIONS
19	Net-Zero CO ₂ Germany – A Retrospect From the Year 2050. <i>Earth's Future</i> , 2022, 10, .	2.4	14
20	Constraining water limitation of photosynthesis in a crop growth model with sun-induced chlorophyll fluorescence. <i>Remote Sensing of Environment</i> , 2021, 267, 112722.	4.6	12
21	Problems associated to kinetic fitting of incubation data. <i>Soil Biology and Biochemistry</i> , 2018, 120, 260-271.	4.2	11
22	Estimating the Number of Reference Sites Necessary for the Validation of Global Soil Moisture Products. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2021, 18, 1530-1534.	1.4	8
23	Evaluation of different methods for gap filling of long-term actual evapotranspiration time series measured by lysimeters. <i>Vadose Zone Journal</i> , 2020, 19, e20020.	1.3	7
24	Quantification of water stress induced within-field variability of carbon dioxide fluxes in a sugar beet stand. <i>Agricultural and Forest Meteorology</i> , 2021, 297, 108242.	1.9	6
25	Added value of geophysics-based soil mapping in agro-ecosystem simulations. <i>Soil</i> , 2021, 7, 125-143.	2.2	6
26	Simulating decomposition of ¹⁴ C-labelled fresh organic matter in bulk soil and soil particle fractions at various temperatures and moisture contents. <i>European Journal of Soil Science</i> , 2010, 61, 940-949.	1.8	5
27	Yield potential and factor influencing yield gap in industrial hemp cultivation under nemoral climate conditions. <i>European Journal of Agronomy</i> , 2022, 139, 126576.	1.9	5
28	Same soil, different climate: Crop model intercomparison on translocated lysimeters. <i>Vadose Zone Journal</i> , 2022, 21, .	1.3	4
29	Salinity-independent dissipation of antibiotics from flooded tropical soil: a microcosm study. <i>Scientific Reports</i> , 2020, 10, 14088.	1.6	3