

# Thorsten Behrens

## List of Publications by Year in descending order

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Version: 2024-02-01

42  
papers

3,615  
citations

186265  
28  
h-index

289244  
40  
g-index

42  
all docs

42  
docs citations

42  
times ranked

3231  
citing authors

#	ARTICLE	IF	CITATIONS
1	Contextual spatial modelling in the horizontal and vertical domains. <i>Scientific Reports</i> , 2022, 12, .	3.3	3
2	Improving the spatial prediction of soil salinity in arid regions using wavelet transformation and support vector regression models. <i>Geoderma</i> , 2021, 383, 114793.	5.1	58
3	Synthetic resampling strategies and machine learning for digital soil mapping in Iran. <i>European Journal of Soil Science</i> , 2020, 71, 352-368.	3.9	42
4	On the interpretability of predictors in spatial data science: the information horizon. <i>Scientific Reports</i> , 2020, 10, 16737.	3.3	17
5	3D mapping of soil organic carbon content and soil moisture with multiple geophysical sensors and machine learning. <i>Vadose Zone Journal</i> , 2020, 19, e20062.	2.2	18
6	Multi-task convolutional neural networks outperformed random forest for mapping soil particle size fractions in central Iran. <i>Geoderma</i> , 2020, 376, 114552.	5.1	59
7	Improving the Spatial Prediction of Soil Organic Carbon Content in Two Contrasting Climatic Regions by Stacking Machine Learning Models and Rescanning Covariate Space. <i>Remote Sensing</i> , 2020, 12, 1095.	4.0	109
8	Teleconnections in spatial modelling. <i>Geoderma</i> , 2019, 354, 113854.	5.1	9
9	The relevant range of scales for multi-scale contextual spatial modelling. <i>Scientific Reports</i> , 2019, 9, 14800.	3.3	13
10	Continental-scale soil carbon composition and vulnerability modulated by regional environmental controls. <i>Nature Geoscience</i> , 2019, 12, 547-552.	12.9	92
11	Comparison of catchment scale 3D and 2.5D modelling of soil organic carbon stocks in Jiangxi Province, PR China. <i>PLoS ONE</i> , 2019, 14, e0220881.	2.5	20
12	Updating a national soil classification with spectroscopic predictions and digital soil mapping. <i>Catena</i> , 2018, 164, 125-134.	5.0	47
13	Multiscale contextual spatial modelling with the Gaussian scale space. <i>Geoderma</i> , 2018, 310, 128-137.	5.1	46
14	Multi-scale digital soil mapping with deep learning. <i>Scientific Reports</i> , 2018, 8, 15244.	3.3	85
15	Spatial modelling with Euclidean distance fields and machine learning. <i>European Journal of Soil Science</i> , 2018, 69, 757-770.	3.9	91
16	Predicting reference soil groups using legacy data: A data pruning and Random Forest approach for tropical environment (Dano catchment, Burkina Faso). <i>Scientific Reports</i> , 2018, 8, 9959.	3.3	38
17	Uncertainty-guided sampling to improve digital soil maps. <i>Catena</i> , 2017, 153, 30-38.	5.0	33
18	Incorporating limited field operability and legacy soil samples in a hypercube sampling design for digital soil mapping. <i>Journal of Plant Nutrition and Soil Science</i> , 2016, 179, 499-509.	1.9	40

#	ARTICLE	IF	CITATIONS
19	Spatial and Temporal Dynamics of Hillslope-Scale Soil Moisture Patterns: Characteristic States and Transition Mechanisms. <i>Vadose Zone Journal</i> , 2015, 14, 1-16.	2.2	51
20	Predictive soil mapping with limited sample data. <i>European Journal of Soil Science</i> , 2015, 66, 535-547.	3.9	94
21	Sampling optimal calibration sets in soil infrared spectroscopy. <i>Geoderma</i> , 2014, 226-227, 140-150.	5.1	89
22	Hyper-scale digital soil mapping and soil formation analysis. <i>Geoderma</i> , 2014, 213, 578-588.	5.1	90
23	A comparison of calibration sampling schemes at the field scale. <i>Geoderma</i> , 2014, 232-234, 243-256.	5.1	38
24	Degradation of cultivated bench terraces in the Three Gorges Area: Field mapping and data mining. <i>Ecological Indicators</i> , 2013, 34, 478-493.	6.3	44
25	An approach to computing topographic wetness index based on maximum downslope gradient. <i>Precision Agriculture</i> , 2011, 12, 32-43.	6.0	133
26	Applicability of ground-penetrating radar as a tool for nondestructive soil-depth mapping on Pleistocene periglacial slope deposits. <i>Journal of Plant Nutrition and Soil Science</i> , 2010, 173, 173-184.	1.9	23
27	Spatial Modeling of a Soil Fertility Index using Visible-Near-Infrared Spectra and Terrain Attributes. <i>Soil Science Society of America Journal</i> , 2010, 74, 1293-1300.	2.2	38
28	Assessing the USLE crop and management factor C for soil erosion modeling in a large mountainous watershed in Central China. <i>Journal of Earth Science (Wuhan, China)</i> , 2010, 21, 835-845.	3.2	53
29	The ConMap approach for terrain-based digital soil mapping. <i>European Journal of Soil Science</i> , 2010, 61, 133-143.	3.9	62
30	A method to generate soilscapes from soil maps. <i>Journal of Plant Nutrition and Soil Science</i> , 2010, 173, 163-172.	1.9	23
31	Multi-scale digital terrain analysis and feature selection for digital soil mapping. <i>Geoderma</i> , 2010, 155, 175-185.	5.1	236
32	Using data mining to model and interpret soil diffuse reflectance spectra. <i>Geoderma</i> , 2010, 158, 46-54.	5.1	912
33	iSOIL: An EU Project to Integrate Geophysics, Digital Soil Mapping, and Soil Science. , 2010, , 103-110.		5
34	Analysis on pedodiversity and spatial subset representativity-the German soil map 1:1,000,000. <i>Journal of Plant Nutrition and Soil Science</i> , 2009, 172, 91-100.	1.9	13
35	Test of statistical means for the extrapolation of soil depth point information using overlays of spatial environmental data and bootstrapping techniques. <i>Hydrological Processes</i> , 2009, 23, 3017-3029.	2.6	20
36	Soil organic carbon concentrations and stocks on Barro Colorado Island - Digital soil mapping using Random Forests analysis. <i>Geoderma</i> , 2008, 146, 102-113.	5.1	511

#	ARTICLE	IF	CITATIONS
37	Instance selection and classification tree analysis for large spatial datasets in digital soil mapping. <i>Geoderma</i> , 2008, 146, 138-146.	5.1	58
38	An Approach to Removing Uncertainties in Nominal Environmental Covariates and Soil Class Maps. , 2008, , 213-224.		7
39	Digital soil mapping in Germanyâ€™a review. <i>Journal of Plant Nutrition and Soil Science</i> , 2007, 170, 181-181.	1.9	4
40	Digital soil mapping in Germanyâ€™a review. <i>Journal of Plant Nutrition and Soil Science</i> , 2006, 169, 434-443.	1.9	82
41	Chapter 25 A Comparison of Data-Mining Techniques in Predictive Soil Mapping. <i>Developments in Soil Science</i> , 2006, , 353-617.	0.5	24
42	Digital soil mapping using artificial neural networks. <i>Journal of Plant Nutrition and Soil Science</i> , 2005, 168, 21-33.	1.9	185