Alexander Brenning

List of Publications by Year
in descending order

97 papers	5,502 citations	101384 36 h-index	88477 70 g-index
119 all docs	119 docs citations	119 times ranked	5553 citing authors

#	Article	IF	Citations
1	Evaluating machine learning and statistical prediction techniques for landslide susceptibility modeling. Computers and Geosciences, 2015, 81, 1-11.	2.0	526
2	Spatial prediction models for landslide hazards: review, comparison and evaluation. Natural Hazards and Earth System Sciences, 2005, 5, 853-862.	1.5	511
3	A geographic approach for combining social media and authoritative data towards identifying useful information for disaster management. International Journal of Geographical Information Science, 2015, 29, 667-689.	2.2	292
4	Hyperparameter tuning and performance assessment of statistical and machine-learning algorithms using spatial data. Ecological Modelling, 2019, 406, 109-120.	1.2	230
5	Integrating physical and empirical landslide susceptibility models using generalized additive models. Geomorphology, 2011, 129, 376-386.	1.1	211
6	A comparative study of different classification techniques for marine oil spill identification using RADARSAT-1 imagery. Remote Sensing of Environment, 2014, 141, 14-23.	4.6	204
7	Permafrost distribution in the European Alps: calculation and evaluation of an index map and summary statistics. Cryosphere, 2012, 6, 807-820.	1.5	203
8	Assessing the quality of landslide susceptibility maps â€“ case study Lower Austria. Natural Hazards and Earth System Sciences, 2014, 14, 95-118.	1.5	176
9	Hydrological and geomorphological significance of rock glaciers in the dry Andes, Chile (27Â°â€“33Â°S). Permafrost and Periglacial Processes, 2010, 21, 42-53.	1.5	159
10	Benchmarking classifiers to optimally integrate terrain analysis and multispectral remote sensing in automatic rock glacier detection. Remote Sensing of Environment, 2009, 113, 239-247.	4.6	128
11	Geomorphological, hydrological and climatic significance of rock glaciers in the Andes of Central Chile (33-35Â°S). Permafrost and Periglacial Processes, 2005, 16, 231-240.	1.5	123
12	New approaches to modelling fishâ€“habitat relationships. Ecological Modelling, 2010, 221, 503-511.	1.2	122
13	A statistical approach to modelling permafrost distribution in the European Alps or similar mountain ranges. Cryosphere, 2012, 6, 125-140.	1.5	115
14	Exploring discrepancies between quantitative validation results and the geomorphic plausibility of statistical landslide susceptibility maps. Geomorphology, 2016, 262, 8-23.	1.1	114
15	Spatial cross-validation and bootstrap for the assessment of prediction rules in remote sensing: The R package sperrorest. , 2012, , .		102
16	Predictive mapping of reef fish species richness, diversity and biomass in Zanzibar using IKONOS imagery and machine-learning techniques. Remote Sensing of Environment, 2010, 114, 1230-1241.	4.6	98
17	Assessing fruit-tree crop classification from Landsat-8 time series for the Maipo Valley, Chile. Remote Sensing of Environment, 2015, 171, 234-244.	4.6	82
18	The propagation of inventory-based positional errors into statistical landslide susceptibility models. Natural Hazards and Earth System Sciences, 2016, 16, 2729-2745.	1.5	81

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19	Landslide susceptibility near highways is increased by 1 order of magnitude in the Andes of southern Ecuador, Loja province. Natural Hazards and Earth System Sciences, 2015, 15, 45-57.	1.5	80
20	Logistic regression modeling of rock glacier and glacier distribution: Topographic and climatic controls in the semi-arid Andes. Geomorphology, 2006, 81, 141-154.	1.1	76
21	Quantifying dwarf shrub biomass in an arid environment: comparing empirical methods in a high dimensional setting. Remote Sensing of Environment, 2015, 158, 140-155.	4.6	73
22	Trends and variability in streamflow and snowmelt runoff timing in the southern Tianshan Mountains. Journal of Hydrology, 2018, 557, 173-181.	2.3	72
23	Where Are Global Vegetation Greening and Browning Trends Significant?. Geophysical Research Letters, 2021, 48, e2020GL091496.	1.5	58
24	Sampling and statistical analyses of BTS measurements. Permafrost and Periglacial Processes, 2005, 16, 383-393.	1.5	57
25	Status and evolution of the cryosphere in the Andes of Santiago (Chile, 33.5Â°S.). Geomorphology, 2010, 118, 453-464.	1.1	57
26	Contrasting biosphere responses to hydrometeorological extremes: revisiting the 2010 western Russian heatwave. Biogeosciences, 2018, 15, 6067-6085.	1.3	57
27	Permafrost distribution modelling in the semi-arid Chilean Andes. Cryosphere, 2017, 11, 877-890.	1.5	54
28	Balancing misclassification errors of land cover classification maps using support vector machines and Landsat imagery in the Maipo river basin (Central Chile, 1975â€“2010). Remote Sensing of Environment, 2013, 137, 112-123.	4.6	52
29	Interpretation of electrical conductivity patterns by soil properties and geological maps for precision agriculture. Precision Agriculture, 2009, 10, 490-507.	3.1	48
30	Detecting rock glacier flow structures using Gabor filters and IKONOS imagery. Remote Sensing of Environment, 2012, 125, 227-237.	4.6	45
31	Using spectrotemporal indices to improve the fruit-tree crop classification accuracy. ISPRS Journal of Photogrammetry and Remote Sensing, 2017, 128, 158-169.	4.9	44
32	Geomorphic process rates of landslides along a humidity gradient in the tropical Andes. Geomorphology, 2012, 139-140, 271-284.	1.1	43
33	Permafrost Favorability Index: Spatial Modeling in the French Alps Using a Rock Glacier Inventory. Frontiers in Earth Science, 2017, 5, .	0.8	41
34	Modeling the precision of structure-from-motion multi-view stereo digital elevation models from repeated close-range aerial surveys. Remote Sensing of Environment, 2018, 210, 208-216.	4.6	41
35	Evaluating the destabilization susceptibility of active rock glaciers in the French Alps. Cryosphere, 2019, 13, 141-155.	1.5	41
36	Review of historical and projected future climatic and hydrological changes in mountainous semiarid Xinjiang (northwestern China), central Asia. Catena, 2020, 187, 104343.	2.2	41

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37	Statistical analysis of topographic and climatic controls and multispectral signatures of rock glaciers in the dry Andes, Chile (27Â°â€“33Â°S). Permafrost and Periglacial Processes, 2010, 21, 54-66.	1.5	39
38	Statistical modelling of rock wall permafrost distribution: application to the Mont Blanc massif. Geomorphologie Relief, Processus, Environnement, 2015, 21, 145-162.	0.7	39
39	Statistical estimation and generalized additive modeling of rock glacier distribution in the San Juan Mountains, Colorado, United States. Journal of Geophysical Research, 2007, 112, .	3.3	38
40	Forest harvesting is associated with increased landslide activity during an extreme rainstorm on Vancouver Island, Canada. Natural Hazards and Earth System Sciences, 2015, 15, 1311-1330.	1.5	37
41	Do Red Edge and Texture Attributes from High-Resolution Satellite Data Improve Wood Volume Estimation in a Semi-Arid Mountainous Region?. Remote Sensing, 2016, 8, 540.	1.8	37
42	Multifactorial spatial analysis of mycotoxin contamination of winter wheat at the field and landscape scale. Agriculture, Ecosystems and Environment, 2010, 139, 245-254.	2.5	35
43	Towards a global understanding of vegetationâ€“climate dynamics at multiple timescales. Biogeosciences, 2020, 17, 945-962.	1.3	35
44	Spatialâ€temporal variation of nearâ€surface temperature lapse rates over the Tianshan Mountains, central Asia. Journal of Geophysical Research D: Atmospheres, 2016, 121, 14,006.	1.2	33
45	The performance of landslide susceptibility models critically depends on the quality of digital elevation models. Geomatics, Natural Hazards and Risk, 2020, 11, 1075-1092.	2.0	33
46	Vegetation modulates the impact of climate extremes on gross primary production. Biogeosciences, 2021, 18, 39-53.	1.3	33
47	Remote Sensing of Soil Moisture in Vineyards Using Airborne and Ground-Based Thermal Inertia Data. Remote Sensing, 2013, 5, 3729-3748.	1.8	32
48	Using Fixed-Wing UAV for Detecting and Mapping the Distribution and Abundance of Penguins on the South Shetlands Islands, Antarctica. Drones, 2019, 3, 39.	2.7	32
49	Data Mining in Precision Agriculture: Management of Spatial Information. Lecture Notes in Computer Science, 2010, , 350-359.	1.0	32
50	Pupillographic Measurements with Pattern Stimulation: The Pupilâ€™s Response in Normal Subjects and First Measurements in Glaucoma Patients. , 2006, 47, 4947.		27
51	On the Effect of Spatially Non-Disjoint Training and Test Samples on Estimated Model Generalization Capabilities in Supervised Classification With Spatial Features. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 2008-2012.	1.4	27
52	Multivariate anomaly detection for Earth observations: a comparison of algorithms and feature extraction techniques. Earth System Dynamics, 2017, 8, 677-696.	2.7	27
53	Event-Based Landslide Modeling in the Styrian Basin, Austria: Accounting for Time-Varying Rainfall and Land Cover. Geosciences (Switzerland), 2020, 10, 217.	1.0	27
54	Interactions between Seasonal Snow Cover, Ground Surface Temperature and Topography (Andes of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.5	24

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55	Thermal remote sensing of ice-debris landforms using ASTER: an example from the Chilean Andes. Cryosphere, 2012, 6, 367-382.	1.5	24
56	Quantifying Uncertainties in Snow Depth Mapping From Structure From Motion Photogrammetry in an Alpine Area. Water Resources Research, 2019, 55, 7772-7783.	1.7	22
57	Active-Learning Approaches for Landslide Mapping Using Support Vector Machines. Remote Sensing, 2021, 13, 2588.	1.8	22
58	A severe landslide event in the Alpine foreland under possible future climate and land-use changes. Communications Earth & Environment, 2022, 3, .	2.6	22
59	Estimating error rates in the classification of paired organs. Statistics in Medicine, 2008, 27, 4515-4531.	0.8	21
60	RQGIS: Integrating R with QGIS for Statistical Geocomputing. R Journal, 2017, 9, 409.	0.7	21
61	Unraveling the Hydrology of the Glacierized Kaidu Basin by Integrating Multisource Data in the Tianshan Mountains, Northwestern China. Water Resources Research, 2018, 54, 557-580.	1.7	20
62	Geographic Object-Based Image Analysis for Automated Landslide Detection Using Open Source GIS Software. ISPRS International Journal of Geo-Information, 2019, 8, 551.	1.4	20
63	Glaucoma Detection With Frequency Doubling Perimetry and Short-wavelength Perimetry. Journal of Glaucoma, 2007, 16, 363-371.	0.8	17
64	Geostatistical homogenization of soil conductivity across field boundaries. Geoderma, 2008, 143, 254-260.	2.3	17
65	Potential of Space-Borne Hyperspectral Data for Biomass Quantification in an Arid Environment: Advantages and Limitations. Remote Sensing, 2015, 7, 4565-4580.	1.8	17
66	Constructing satellite-derived hyperspectral indices sensitive to canopy structure variables of a Cordilleran Cypress (Austrocedrus chilensis) forest. ISPRS Journal of Photogrammetry and Remote Sensing, 2012, 74, 1-10.	4.9	16
67	Multicriteria decision analysis framework for hydrological decision support using environmental flow components. Ecological Indicators, 2018, 93, 470-480.	2.6	16
68	Crop biomass and humidity related factors reflect the spatial distribution of phytopathogenic Fusarium fungi and their mycotoxins in heterogeneous fields and landscapes. Precision Agriculture, 2016, 17, 698-720.	3.1	15
69	Spatial analysis of the risk of major forest diseases in Monterey pine plantations. Plant Pathology, 2015, 64, 880-889.	1.2	14
70	Accounting for multiple testing in the analysis of spatio-temporal environmental data. Environmental and Ecological Statistics, 2020, 27, 293-318.	1.9	13
71	Ensemble classification of paired data. Computational Statistics and Data Analysis, 2011, 55, 1933-1941.	0.7	12
72	Spatial Variable Importance Assessment for Yield Prediction in Precision Agriculture. Lecture Notes in Computer Science, 2010, , 184-195.	1.0	12

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73	Linear mixed modelling of snow distribution in the central Yukon. Hydrological Processes, 2011, 25, 3332-3346.	1.1	10
74	Could surface roughness be a poor proxy for landslide age? Results from the Swabian Alb, Germany. Earth Surface Processes and Landforms, 2014, 39, 1697-1704.	1.2	10
75	MinerÃa y glaciares rocosos: impactos ambientales, antecedentes polÃticos y legales, y perspectivas futuras. Revista De Geografia Norte Grande, 2010, , .	0.1	9
76	Central Mongolian lake sediments reveal new insights on climate change and equestrian empires in the Eastern Steppes. Scientific Reports, 2022, 12, 2829.	1.6	9
77	Longitudinal in vivo reproducibility of cartilage volume and surface in osteoarthritis of the knee. Skeletal Radiology, 2007, 36, 315-320.	1.2	8
78	Towards generic real-time mapping algorithms for environmental monitoring and emergency detection. Stochastic Environmental Research and Risk Assessment, 2008, 22, 601-611.	1.9	8
79	Within-field variation of mycotoxin contamination of winter wheat is related to indicators of soil moisture. Plant and Soil, 2011, 342, 289-300.	1.8	8
80	Evaluation of low-cost computer monitors for the detection of cervical spine injuries in the emergency room: an observer confidence-based study. Emergency Medicine Journal, 2006, 23, 850-853.	0.4	7
81	The significance of rock glaciers in the dry Andes â€“ reply to L. Arenson and M. Jakob. Permafrost and Periglacial Processes, 2010, 21, 286-288.	1.5	7
82	Recovery of Forest Structure Following Large-Scale Windthrows in the Northwestern Amazon. Forests, 2021, 12, 667.	0.9	7
83	Towards the Use of Land Use Legacies in Landslide Modeling: Current Challenges and Future Perspectives in an Austrian Case Study. Land, 2021, 10, 954.	1.2	7
84	Accounting for permafrost creep in high-resolution snow depth mapping by modelling sub-snow ground deformation. Remote Sensing of Environment, 2019, 231, 111275.	4.6	5
85	A Regional Earth System Data Lab for Understanding Ecosystem Dynamics: An Example from Tropical South America. Frontiers in Earth Science, 2021, 9, .	0.8	5
86	Optimizing and validating the Gravitational Process Path model for regional debris-flow runout modelling. Natural Hazards and Earth System Sciences, 2021, 21, 2543-2562.	1.5	5
87	Modelling Landslide Susceptibility for a Large Geographical Area Using Weights of Evidence in Lower Austria, Austria. , 2015, , 927-930.		4
88	Modelling the spread of European buckthorn in the Region of Waterloo. Biological Invasions, 2017, 19, 2993-3011.	1.2	4
89	Indirect modeling of hourly meteorological time series for winter road maintenance. Environmetrics, 2011, 22, 398-408.	0.6	3
90	Forecasting northern polar stratospheric variability with competing statistical learning models. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 1816-1827.	1.0	3

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91	Monitoring and predictive mapping of floristic biodiversity along a climatic gradient in ENSO's terrestrial core region, NW Peru. Ecography, 2020, 43, 1878-1890.	2.1	3
92	Modelling of Hydrological Responses in the Upper Citarum Basin based on the Spatial Plan of West Java Province 2029 and Climate Change. International Journal of Technology, 2019, 10, 866.	0.4	3
93	Monitoring Forest Health Using Hyperspectral Imagery: Does Feature Selection Improve the Performance of Machine-Learning Techniques?. Remote Sensing, 2021, 13, 4832.	1.8	3
94	Classifying fruit-tree crops by Landsat-8 time series. , 2017, , .		2
95	Analyzing Hydro-Climatic Data to Improve Hydrological Understanding in Rural Rio de Janeiro, Southeast Brazil. Springer Series on Environmental Management, 2019, , 237-255.	0.3	1
96	Mating type ratios and pathogenicity in Diplodia shoot blight fungi populations: Comparative analysis. Forest Pathology, 2019, 49, e12475.	0.5	1
97	Land Cover Classification by Multisource Remote Sensing: Comparing Classifiers for Spatial Data. Studies in Classification, Data Analysis, and Knowledge Organization, 2010, , 435-443.	0.1	0