Ribana Roscher

List of Publications by Year
in descending order

55 papers	1,248 citations	623188 14 h-index	525886 27 g-index
64 all docs	64 docs citations	64 times ranked	1444 citing authors

#	Article	IF	Citations
1	Long-term drought monitoring of the Zayandehrud River basin (central Iran) using hydroclimatological models and satellite observations. Journal of Applied Remote Sensing, 2022, 16, .	0.6	1
2	Explainable Machine Learning Reveals Capabilities, Redundancy, and Limitations of a Geospatial Air Quality Benchmark Dataset. Machine Learning and Knowledge Extraction, 2022, 4, 150-171.	3.2	8
3	Behind the Leaves: Estimation of Occluded Grapevine Berries With Conditional Generative Adversarial Networks. Frontiers in Artificial Intelligence, 2022, 5, 830026.	2.0	16
4	Image-based analysis of yield parameters in viticulture. Biosystems Engineering, 2022, 218, 94-109.	1.9	4
5	Global, high-resolution mapping of tropospheric ozone â€“ explainable machine learning and impact of uncertainties. Geoscientific Model Development, 2022, 15, 4331-4354.	1.3	12
6	Detection of Anomalous Grapevine Berries Using Variational Autoencoders. Frontiers in Plant Science, 2022, 13, .	1.7	2
7	Agricultural plant cataloging and establishment of a data framework from UAV-based crop images by computer vision. GigaScience, 2022, 11, .	3.3	11
8	Artificial and beneficial â€“ Exploiting artificial images for aerial vehicle detection. ISPRS Journal of Photogrammetry and Remote Sensing, 2021, 175, 158-170.	4.9	10
9	AQ-Bench: a benchmark dataset for machine learning on global air quality metrics. Earth System Science Data, 2021, 13, 3013-3033.	3.7	12
10	Toward a Collective Agenda on AI for Earth Science Data Analysis. IEEE Geoscience and Remote Sensing Magazine, 2021, 9, 88-104.	4.9	35
11	Temporal prediction and evaluation of Brassica growth in the field using conditional generative adversarial networks. Computers and Electronics in Agriculture, 2021, 190, 106415.	3.7	18
12	ArtifiVe-Potsdam: A Benchmark for Learning with Artificial Objects for Improved Aerial Vehicle Detection. , 2021, , .		2
13	Maneuver-based Trajectory Prediction for Self-driving Cars Using Spatio-temporal Convolutional Networks. , 2021, , .		17
14	Explainable Machine Learning for Scientific Insights and Discoveries. IEEE Access, 2020, 8, 42200-42216.	2.6	466
15	Counting of grapevine berries in images via semantic segmentation using convolutional neural networks. ISPRS Journal of Photogrammetry and Remote Sensing, 2020, 164, 73-83.	4.9	79
16	Automatic Differentiation of Damaged and Unharmed Grapes Using RGB Images and Convolutional Neural Networks. Lecture Notes in Computer Science, 2020, , 347-359.	1.0	1
17	Detection of Single Grapevine Berries in Images Using Fully Convolutional Neural Networks. , 2019, , .		26
18	Detection of Anomalous Grapevine Berries Using All-Convolutional Autoencoders. , 2019, , .		3

#	Article	IF	Citations
19	Hyperspectral Plant Disease Forecasting Using Generative Adversarial Networks. , 2019, , .		20
20	Ocean Eddy Identification and Tracking Using Neural Networks. , 2018, , .		37
21	Foreword to the Special Issue on Machine Learning for Geospatial Data Analysis. ISPRS International Journal of Geo-Information, 2018, 7, 147.	1.4	3
22	Archetypal Analysis for Sparse Representation-Based Hyperspectral Sub-pixel Quantification. Photogrammetric Engineering and Remote Sensing, 2018, 84, 279-286.	0.3	3
23	Subpixel Mapping of Urban Areas Using EnMAP Data and Multioutput Support Vector Regression. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 1938-1948.	2.3	19
24	STAR: Spatio-temporal altimeter waveform retracking using sparse representation and conditional random fields. Remote Sensing of Environment, 2017, 201, 148-164.	4.6	29
25	Tropical land use land cover mapping in ParÃ¡ (Brazil) using discriminative Markov random fields and multi-temporal TerraSAR-X data. International Journal of Applied Earth Observation and Geoinformation, 2017, 63, 244-256.	1.4	16
26	Sparse representation-based archetypal graphs for spectral clustering. , 2017, , .		2
27	Discriminative archetypal self-taught learning for multispectral landcover classification. , 2016, , .		1
28	Mapping raised bogs with an iterative one-class classification approach. ISPRS Journal of Photogrammetry and Remote Sensing, 2016, 120, 53-64.	4.9	38
29	Statistical Inference, Learning and Models in Big Data. International Statistical Review, 2016, 84, 371-389.	1.1	42
30	On the benefit of topographic dictionaries for detecting disease symptoms on hyperspectral 3D plant models. , 2016, , .		1
31	Shapelet-Based Sparse Representation for Landcover Classification of Hyperspectral Images. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 1623-1634.	2.7	28
32	IMAGE BASED EVALUATION FOR THE DETECTION OF CLUSTER PARAMETERS IN GRAPEVINE. Acta Horticulturae, 2015, , 335-340.	0.1	9
33	Landcover classification with self-taught learning on archetypal dictionaries. , 2015, , .		4
34	Spatio-temporal altimeter waveform retracking via sparse representation and conditional random fields. , 2015, , .		0
35	Can I Trust My One-Class Classification?. Remote Sensing, 2014, 6, 8779-8802.	1.8	40
36	Superpixel-based classification of hyperspectral data using sparse representation and conditional random fields. , 2014, , .		13

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37	Automated image analysis framework for high-throughput determination of grapevine berry sizes using conditional random fields. Computers and Electronics in Agriculture, 2014, 100, 148-158.	3.7	63
38	Shapelet-based sparse image representation for landcover classification of hyperspectral data. , 2014, , .		3
39	Incremental Import Vector Machines for Classifying Hyperspectral Data. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 3463-3473.	2.7	38
40	I2VM: Incremental import vector machines. Image and Vision Computing, 2012, 30, 263-278.	2.7	25
41	Incremental import vector machines for large area land cover classification. , 2011, , .		1
42	Import vector machines based classification of multisensor remote sensing data. , 2011, , .		0
43	Kernel Discriminative Random Fields for land cover classification. , 2010, , .		13
44	JUNGLE-NET: USING EXPLAINABLE MACHINE LEARNING TO GAIN NEW INSIGHTS INTO THE APPEARANCE OF WILDERNESS IN SATELLITE IMAGERY. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-3-2021, 317-324.	0.0	6
45	DETECTION OF DISEASE SYMPTOMS ON HYPERSPECTRAL 3D PLANT MODELS. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, III-7, 89-96.	0.0	11
46	WHAT IDENTIFIES A WHALE BY ITS FLUKE? ON THE BENEFIT OF INTERPRETABLE MACHINE LEARNING FOR WHALE IDENTIFICATION. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-2-2020, 1005-1012.	0.0	4
47	MULTI-MODAL DEEP LEARNING WITH SENTINEL-3 OBSERVATIONS FOR THE DETECTION OF OCEANIC INTERNAL WAVES. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-2-2020, 813-820.	0.0	5
48	LEARNING WITH REAL-WORLD AND ARTIFICIAL DATA FOR IMPROVED VEHICLE DETECTION IN AERIAL IMAGERY. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-2-2020, 917-924.	0.0	1
49	EXPLAIN IT TO ME â€“ FACING REMOTE SENSING CHALLENGES IN THE BIO- AND GEOSCIENCES WITH EXPLAINABLE MACHINE LEARNING. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-3-2020, 817-824.	0.0	17
50	DETECTION OF DISEASE SYMPTOMS ON HYPERSPECTRAL 3D PLANT MODELS. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, III-7, 89-96.	0.0	10
51	INVESTIGATION OF LATENT TRACES USING INFRARED REFLECTANCE HYPERSPECTRAL IMAGING. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, III-7, 97-102.	0.0	0
52	INVESTIGATION OF LATENT TRACES USING INFRARED REFLECTANCE HYPERSPECTRAL IMAGING. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, III-7, 97-102.	0.0	0
53	ARCHETYPAL ANALYSIS FOR SPARSE REPRESENTATION-BASED HYPERSPECTRAL SUB-PIXEL QUANTIFICATION. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, IV-1/W1, 133-139.	0.0	0
54	INFERRING ROUTING PREFERENCES OF BICYCLISTS FROM SPARSE SETS OF TRAJECTORIES. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, IV-4/W7, 107-114.	0.0	0

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55	SEMCITY TOULOUSE: A BENCHMARK FOR BUILDING INSTANCE SEGMENTATION IN SATELLITE IMAGES. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-5-2020, 109-116.	0.0	19