Fabian Fassnacht

List of Publications by Year
in descending order

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Version: 2024-02-01

59 papers	3,380 citations	172457 29 h-index	161849 54 g-index
59 all docs	59 docs citations	59 times ranked	4746 citing authors

#	Article	IF	Citations
1	Review of studies on tree species classification from remotely sensed data. Remote Sensing of Environment, 2016, 186, 64-87.	11.0	598
2	Importance of sample size, data type and prediction method for remote sensing-based estimations of aboveground forest biomass. Remote Sensing of Environment, 2014, 154, 102-114.	11.0	290
3	A framework for mapping tree species combining hyperspectral and LiDAR data: Role of selected classifiers and sensor across three spatial scales. International Journal of Applied Earth Observation and Geoinformation, 2014, 26, 49-63.	2.8	242
4	UAV data as alternative to field sampling to map woody invasive species based on combined Sentinel-1 and Sentinel-2 data. Remote Sensing of Environment, 2019, 227, 61-73.	11.0	151
5	Convolutional Neural Networks enable efficient, accurate and fine-grained segmentation of plant species and communities from high-resolution UAV imagery. Scientific Reports, 2019, 9, 17656.	3.3	146
6	Comparison of Feature Reduction Algorithms for Classifying Tree Species With Hyperspectral Data on Three Central European Test Sites. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2547-2561.	4.9	140
7	Comparing Generalized Linear Models and random forest to model vascular plant species richness using LiDAR data in a natural forest in central Chile. Remote Sensing of Environment, 2016, 173, 200-210.	11.0	122
8	Assessing the potential of hyperspectral imagery to map bark beetle-induced tree mortality. Remote Sensing of Environment, 2014, 140, 533-548.	11.0	112
9	Forest structure modeling with combined airborne hyperspectral and LiDAR data. Remote Sensing of Environment, 2012, 121, 10-25.	11.0	94
10	ISS observations offer insights into plant function. Nature Ecology and Evolution, 2017, 1, 194.	7.8	94
11	Convolutional Neural Networks accurately predict cover fractions of plant species and communities in Unmanned Aerial Vehicle imagery. Remote Sensing in Ecology and Conservation, 2020, 6, 472-486.	4.3	82
12	Mapping plant species in mixed grassland communities using close range imaging spectroscopy. Remote Sensing of Environment, 2017, 201, 12-23.	11.0	70
13	Differentiating plant functional types using reflectance: which traits make the difference?. Remote Sensing in Ecology and Conservation, 2019, 5, 5-19.	4.3	69
14	The spectral variability hypothesis does not hold across landscapes. Remote Sensing of Environment, 2017, 192, 114-125.	11.0	65
15	Forest inventories by LiDAR data: A comparison of single tree segmentation and metric-based methods for inventories of a heterogeneous temperate forest. International Journal of Applied Earth Observation and Geoinformation, 2015, 42, 162-174.	2.8	62
16	Stratified aboveground forest biomass estimation by remote sensing data. International Journal of Applied Earth Observation and Geoinformation, 2015, 38, 229-241.	2.8	56
17	Mapping degraded grassland on the Eastern Tibetan Plateau with multi-temporal Landsat 8 data â€" where do the severely degraded areas occur?. International Journal of Applied Earth Observation and Geoinformation, 2015, 42, 115-127.	2.8	54
18	How canopy shadow affects invasive plant species classification in high spatial resolution remote sensing. Remote Sensing in Ecology and Conservation, 2019, 5, 302-317.	4.3	52

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19	Land-use regime shift triggered the recent degradation of alpine pastures in Nyanpo Yutse of the eastern Qinghai-Tibetan Plateau. Landscape Ecology, 2017, 32, 2187-2203.	4.2	46
20	Monitoring Andean high altitude wetlands in central Chile with seasonal optical data: A comparison between Worldview-2 and Sentinel-2 imagery. ISPRS Journal of Photogrammetry and Remote Sensing, 2018, 145, 213-224.	11.1	44
21	Linking plant strategies and plant traits derived by radiative transfer modelling. Journal of Vegetation Science, 2017, 28, 717-727.	2.2	43
22	Identification of high nature value grassland with remote sensing and minimal field data. Ecological Indicators, 2017, 74, 28-38.	6.3	42
23	Tree species identification within an extensive forest area with diverse management regimes using airborne hyperspectral data. International Journal of Applied Earth Observation and Geoinformation, 2020, 84, 101960.	2.8	42
24	Modeling forest biomass using Very-High-Resolution dataâ€"Combining textural, spectral and photogrammetric predictors derived from spaceborne stereo images. European Journal of Remote Sensing, 2015, 48, 245-261.	3.5	40
25	Estimating stand density, biomass and tree species from very high resolution stereo-imagery â€“ towards an all-in-one sensor for forestry applications?. Forestry, 2017, 90, 613-631.	2.3	39
26	An angular vegetation index for imaging spectroscopy dataâ€"Preliminary results on forest damage detection in the Bavarian National Park, Germany. International Journal of Applied Earth Observation and Geoinformation, 2012, 19, 308-321.	2.8	37
27	Invasive tree species detection in the Eastern Arc Mountains biodiversity hotspot using one class classification. Remote Sensing of Environment, 2018, 218, 119-131.	11.0	35
28	Non-destructive estimation of foliar carotenoid content of tree species using merged vegetation indices. Journal of Plant Physiology, 2015, 176, 210-217.	3.5	33
29	A Landsat-based vegetation trend product of the Tibetan Plateau for the time-period 1990â€“2018. Scientific Data, 2019, 6, 78.	5.3	33
30	Using synthetic data to evaluate the benefits of large field plots for forest biomass estimation with LiDAR. Remote Sensing of Environment, 2018, 213, 115-128.	11.0	31
31	About the link between biodiversity and spectral variation. Applied Vegetation Science, 2022, 25, .	1.9	31
32	Intra-annual Ips typographus outbreak monitoring using a multi-temporal GIS analysis based on hyperspectral and ALS data in the BiaÅ‚owieÅ¼a Forests. Forest Ecology and Management, 2019, 442, 105-116.	3.2	29
33	Using aboveground vegetation attributes as proxies for mapping peatland belowground carbon stocks. Remote Sensing of Environment, 2019, 231, 111217.	11.0	27
34	Object-based extraction of bark beetle (Ips typographus L.) infestations using multi-date LANDSAT and SPOT satellite imagery. Progress in Physical Geography, 2014, 38, 755-785.	3.2	26
35	Using a Multistructural Object-Based LiDAR Approach to Estimate Vascular Plant Richness in Mediterranean Forests With Complex Structure. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1008-1012.	3.1	25
36	Adapting a Natura 2000 field guideline for a remote sensing-based assessment of heathland conservation status. International Journal of Applied Earth Observation and Geoinformation, 2017, 60, 61-71.	2.8	24

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37	Synergetic use of Sentinelâ€1 and Sentinelâ€2 for assessments of heathland conservation status. Remote Sensing in Ecology and Conservation, 2018, 4, 225-239.	4.3	22
38	Individual tree point clouds and tree measurements from multi-platform laser scanning in German forests. Earth System Science Data, 2022, 14, 2989-3012.	9.9	22
39	Explaining Sentinel 2-based dNBR and RdNBR variability with reference data from the birdâ€™s eye (UAS) perspective. International Journal of Applied Earth Observation and Geoinformation, 2021, 95, 102262.	2.8	21
40	Mapping the fractional coverage of the invasive shrub Ulex europaeus with multi-temporal Sentinel-2 imagery utilizing UAV orthoimages and a new spatial optimization approach. International Journal of Applied Earth Observation and Geoinformation, 2021, 96, 102281.	2.8	20
41	LiDAR derived forest structure data improves predictions of canopy N and P concentrations from imaging spectroscopy. Remote Sensing of Environment, 2018, 211, 13-25.	11.0	19
42	Predicting Vascular Plant Diversity in Anthropogenic Peatlands: Comparison of Modeling Methods with Free Satellite Data. Remote Sensing, 2017, 9, 681.	4.0	18
43	Biotic and abiotic drivers of carbon, nitrogen and phosphorus stocks in a temperate rainforest. Forest Ecology and Management, 2021, 494, 119341.	3.2	17
44	Opaque voxel-based tree models for virtual laser scanning in forestry applications. Remote Sensing of Environment, 2021, 265, 112641.	11.0	17
45	Using Sentinel-2 and canopy height models to derive a landscape-level biomass map covering multiple vegetation types. International Journal of Applied Earth Observation and Geoinformation, 2021, 94, 102236.	2.8	15
46	Using multispectral landsat and sentinel-2 satellite data to investigate vegetation change at Mount St. Helens since the great volcanic eruption in 1980. Journal of Mountain Science, 2018, 15, 1851-1867.	2.0	14
47	Multitemporal hyperspectral tree species classification in the BiaÅ‚owieÅ¼a Forest World Heritage site. Forestry, 2021, 94, 464-476.	2.3	12
48	Assessing the functional signature of heathland landscapes via hyperspectral remote sensing. Ecological Indicators, 2017, 73, 505-512.	6.3	11
49	Review of forestry oriented multi-angular remote sensing techniques. International Forestry Review, 2012, 14, 285-298.	0.6	8
50	A new concept for estimating the influence of vegetation on throughfall kinetic energy using aerial laser scanning. Earth Surface Processes and Landforms, 2020, 45, 1487-1498.	2.5	8
51	Using a landscape ecological perspective to analyze regime shifts in socialâ€“ecological systems: a case study on grassland degradation of the Tibetan Plateau. Landscape Ecology, 2021, 36, 2277-2293.	4.2	8
52	Influence of plot and sample sizes on aboveground biomass estimations in plantation forests using very high resolution stereo satellite imagery. Forestry, 2021, 94, 278-291.	2.3	7
53	Detecting the spread of invasive species in central Chile with a Sentinel-2 time-series. , 2017, , .		6
54	Assessing Restoration Potential of Fragmented and Degraded Fagaceae Forests in Meghalaya, North-East India. Forests, 2020, 11, 1008.	2.1	5

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55	Mapping fractional woody cover in an extensive semi-arid woodland area at different spatial grains with Sentinel-2 and very high-resolution data. International Journal of Applied Earth Observation and Geoinformation, 2021, 105, 102621.	2.8	3
56	Application of a One-Class Classifier and a Linear Spectral Unmixing Method for Detecting Invasive Species in Central Chile. , 2018, , .		1
57	Linking plant strategies (CSR) and remotely sensed plant traits. , 2016, , .		0
58	Modis-Based Grassland Trends Within and Around the Kekexili Core Protection Zone of the Sanjiangyuan Nature Reserve. , 2018, , .		0
59	Reconstructing the Vegetation Disturbance History of a Biodiversity Hotspot in Central Chile Using Landsat, Bfast and Landtrendr. , 2018, , .		0