

Ole Martin Bollands

List of Publications by Year in descending order

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Version: 2024-02-01

79
papers

4,324
citations

126907

33
h-index

110387

64
g-index

81
all docs

81
docs citations

81
times ranked

3178
citing authors

#	ARTICLE	IF	CITATIONS
1	Airborne laser scanning reveals increased growth and complexity of boreal forest canopies across a network of ungulate exclosures in Norway. <i>Remote Sensing in Ecology and Conservation</i> , 2022, 8, 5-17.	4.3	5
2	Legacy effects of herbivory on treeline dynamics along an elevational gradient. <i>Oecologia</i> , 2022, 198, 801-814.	2.0	3
3	Land cover classification of treeline ecotones along a 1100 km latitudinal transect using spectral and three-dimensional information from UAV-based aerial imagery. <i>Remote Sensing in Ecology and Conservation</i> , 2022, 8, 536-550.	4.3	6
4	On the Potential of Sequential and Nonsequential Regression Models for Sentinel-1-Based Biomass Prediction in Tanzanian Miombo Forests. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2022, 15, 4612-4639.	4.9	5
5	Economic utility of 3D remote sensing data for estimation of site index in Nordic commercial forest inventories: a comparison of airborne laser scanning, digital aerial photogrammetry and conventional practices. <i>Scandinavian Journal of Forest Research</i> , 2021, 36, 55-67.	1.4	6
6	Relationships between single-tree mountain birch summertime albedo and vegetation properties. <i>Agricultural and Forest Meteorology</i> , 2021, 307, 108470.	4.8	12
7	Predicting and mapping site index in operational forest inventories using bitemporal airborne laser scanner data. <i>Forest Ecology and Management</i> , 2020, 457, 117768.	3.2	33
8	Use of local and global maps of forest canopy height and aboveground biomass to enhance local estimates of biomass in miombo woodlands in Tanzania. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2020, 89, 102109.	2.8	5
9	The relative role of climate and herbivory in driving treeline dynamics along a latitudinal gradient. <i>Journal of Vegetation Science</i> , 2020, 31, 392-402.	2.2	10
10	Generation of Lidar-Predicted Forest Biomass Maps from Radar Backscatter with Conditional Generative Adversarial Networks. , 2020, , .		4
11	A Model-Dependent Method for Monitoring Subtle Changes in Vegetation Height in the Boreal-Alpine Ecotone Using Bi-Temporal, Three Dimensional Point Data from Airborne Laser Scanning. <i>Remote Sensing</i> , 2019, 11, 1804.	4.0	7
12	Modelling Site Index in Forest Stands Using Airborne Hyperspectral Imagery and Bi-Temporal Laser Scanner Data. <i>Remote Sensing</i> , 2019, 11, 1020.	4.0	9
13	Effects of UAV Image Resolution, Camera Type, and Image Overlap on Accuracy of Biomass Predictions in a Tropical Woodland. <i>Remote Sensing</i> , 2019, 11, 948.	4.0	36
14	Comparing the accuracies of forest attributes predicted from airborne laser scanning and digital aerial photogrammetry in operational forest inventories. <i>Remote Sensing of Environment</i> , 2019, 226, 26-37.	11.0	39
15	Classifications of Forest Change by Using Bitemporal Airborne Laser Scanner Data. <i>Remote Sensing</i> , 2019, 11, 2145.	4.0	18
16	Effects of terrain slope and aspect on the error of ALS-based predictions of forest attributes. <i>Forestry</i> , 2018, 91, 225-237.	2.3	13
17	Monitoring small pioneer trees in the forest-tundra ecotone: using multi-temporal airborne laser scanning data to model height growth. <i>Environmental Monitoring and Assessment</i> , 2018, 190, 12.	2.7	10
18	Variation in wood basic density within and between tree species and site conditions of exclosures in Tigray, northern Ethiopia. <i>Trees - Structure and Function</i> , 2018, 32, 967-983.	1.9	9

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19	Estimation of biomass change in montane forests in Norway along a 1200 km latitudinal gradient using airborne laser scanning: a comparison of direct and indirect prediction of change under a model-based inferential approach. <i>Scandinavian Journal of Forest Research</i> , 2018, 33, 155-165.	1.4	16
20	Multi-sensor forest vegetation height mapping methods for Tanzania. <i>European Journal of Remote Sensing</i> , 2018, 51, 587-606.	3.5	13
21	Direct and indirect site index determination for Norway spruce and Scots pine using bitemporal airborne laser scanner data. <i>Forest Ecology and Management</i> , 2018, 428, 104-114.	3.2	33
22	Aboveground biomass models for trees and shrubs of exclosures in the drylands of Tigray, northern Ethiopia. <i>Journal of Arid Environments</i> , 2018, 156, 9-18.	2.4	39
23	Individual tree crown approach for predicting site index in boreal forests using airborne laser scanning and hyperspectral data. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2017, 60, 72-82.	2.8	25
24	Post-stratified change estimation for large-area forest biomass using repeated ALS strip sampling. <i>Canadian Journal of Forest Research</i> , 2017, 47, 839-847.	1.7	14
25	Large-scale estimation of change in aboveground biomass in miombo woodlands using airborne laser scanning and national forest inventory data. <i>Remote Sensing of Environment</i> , 2017, 188, 106-117.	11.0	46
26	Modelling above Ground Biomass in Tanzanian Miombo Woodlands Using TanDEM-X WorldDEM and Field Data. <i>Remote Sensing</i> , 2017, 9, 984.	4.0	10
27	Comparing Empirical and Semi-Empirical Approaches to Forest Biomass Modelling in Different Biomes Using Airborne Laser Scanner Data. <i>Forests</i> , 2017, 8, 170.	2.1	10
28	Simulation-based assessment of sampling strategies for large-area biomass estimation using wall-to-wall and partial coverage airborne laser scanning surveys. <i>Remote Sensing of Environment</i> , 2016, 176, 328-340.	11.0	16
29	Mapping and estimating the total living biomass and carbon in low-biomass woodlands using Landsat 8 CDR data. <i>Carbon Balance and Management</i> , 2016, 11, 13.	3.2	53
30	Large-scale estimation of aboveground biomass in miombo woodlands using airborne laser scanning and national forest inventory data. <i>Remote Sensing of Environment</i> , 2016, 186, 626-636.	11.0	26
31	Above- and belowground tree biomass models for three mangrove species in Tanzania: a nonlinear mixed effects modelling approach. <i>Annals of Forest Science</i> , 2016, 73, 353-369.	2.0	27
32	Mapping and estimating forest area and aboveground biomass in miombo woodlands in Tanzania using data from airborne laser scanning, TanDEM-X, RapidEye, and global forest maps: A comparison of estimated precision. <i>Remote Sensing of Environment</i> , 2016, 175, 282-300.	11.0	77
33	Modelling aboveground forest biomass using airborne laser scanner data in the miombo woodlands of Tanzania. <i>Carbon Balance and Management</i> , 2015, 10, 28.	3.2	24
34	Modeling Aboveground Biomass in Dense Tropical Submontane Rainforest Using Airborne Laser Scanner Data. <i>Remote Sensing</i> , 2015, 7, 788-807.	4.0	65
35	Effects of Pulse Density on Digital Terrain Models and Canopy Metrics Using Airborne Laser Scanning in a Tropical Rainforest. <i>Remote Sensing</i> , 2015, 7, 8453-8468.	4.0	35
36	Comparing biophysical forest characteristics estimated from photogrammetric matching of aerial images and airborne laser scanning data. <i>Scandinavian Journal of Forest Research</i> , 2015, 30, 73-86.	1.4	82

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37	The effects of field plot size on model-assisted estimation of aboveground biomass change using multitemporal interferometric SAR and airborne laser scanning data. <i>Remote Sensing of Environment</i> , 2015, 168, 252-264.	11.0	49
38	Monitoring forest carbon in a Tanzanian woodland using interferometric SAR: a novel methodology for REDD+. <i>Carbon Balance and Management</i> , 2015, 10, 14.	3.2	21
39	Indirect and direct estimation of forest biomass change using forest inventory and airborne laser scanning data. <i>Remote Sensing of Environment</i> , 2015, 164, 36-42.	11.0	74
40	Effects of field plot size on prediction accuracy of aboveground biomass in airborne laser scanning-assisted inventories in tropical rain forests of Tanzania. <i>Carbon Balance and Management</i> , 2015, 10, 10.	3.2	59
41	Improving Classification of Airborne Laser Scanning Echoes in the Forest-Tundra Ecotone Using Geostatistical and Statistical Measures. <i>Remote Sensing</i> , 2014, 6, 4582-4599.	4.0	7
42	Automatic Detection of Small Single Trees in the Forest-Tundra Ecotone Using Airborne Laser Scanning. <i>Remote Sensing</i> , 2014, 6, 10152-10170.	4.0	10
43	Tree crown delineation and tree species classification in boreal forests using hyperspectral and ALS data. <i>Remote Sensing of Environment</i> , 2014, 140, 306-317.	11.0	222
44	Functions for estimating aboveground biomass of birch in Norway. <i>Scandinavian Journal of Forest Research</i> , 2014, 29, 565-578.	1.4	15
45	Modeling and Estimating Change. <i>Managing Forest Ecosystems</i> , 2014, , 293-313.	0.9	8
46	Assessing Dead Wood by Airborne Laser Scanning. <i>Managing Forest Ecosystems</i> , 2014, , 375-395.	0.9	10
47	Allometric models for prediction of above- and belowground biomass of trees in the miombo woodlands of Tanzania. <i>Forest Ecology and Management</i> , 2013, 310, 87-101.	3.2	153
48	On the evaluation of competition indices – The problem of overlapping samples. <i>Forest Ecology and Management</i> , 2013, 310, 120-133.	3.2	11
49	Comparison of precision of biomass estimates in regional field sample surveys and airborne LiDAR-assisted surveys in Hedmark County, Norway. <i>Remote Sensing of Environment</i> , 2013, 130, 108-120.	11.0	88
50	A simulation approach for accuracy assessment of two-phase post-stratified estimation in large-area LiDAR biomass surveys. <i>Remote Sensing of Environment</i> , 2013, 133, 210-224.	11.0	53
51	Tree Species Classification in Boreal Forests With Hyperspectral Data. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2013, 51, 2632-2645.	6.3	278
52	Model-assisted estimation of change in forest biomass over an 11-year period in a sample survey supported by airborne LiDAR: A case study with post-stratification to provide ‘‘activity data’’. <i>Remote Sensing of Environment</i> , 2013, 128, 299-314.	11.0	106
53	Detection of biomass change in a Norwegian mountain forest area using small footprint airborne laser scanner data. <i>Statistical Methods and Applications</i> , 2013, 22, 113-129.	1.2	61
54	Characterizing forest species composition using multiple remote sensing data sources and inventory approaches. <i>Scandinavian Journal of Forest Research</i> , 2013, 28, 677-688.	1.4	65

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55	Classifying tree and nontree echoes from airborne laser scanning in the forest-tundra ecotone. <i>Canadian Journal of Remote Sensing</i> , 2013, 38, 655-666.	2.4	13
56	Optimizing management regimes for carbon storage and other benefits in uneven-aged stands dominated by Norway spruce, with a derivation of the economic supply of carbon storage. <i>Scandinavian Journal of Forest Research</i> , 2012, 27, 460-473.	1.4	34
57	Estimating biomass in Hedmark County, Norway using national forest inventory field plots and airborne laser scanning. <i>Remote Sensing of Environment</i> , 2012, 123, 443-456.	11.0	102
58	Assessing the accuracy of regional LiDAR-based biomass estimation using a simulation approach. <i>Remote Sensing of Environment</i> , 2012, 123, 579-592.	11.0	75
59	Deriving individual tree competition indices from airborne laser scanning. <i>Forest Ecology and Management</i> , 2012, 280, 150-165.	3.2	25
60	Estimating potential logging residues in a boreal forest by airborne laser scanning. <i>Biomass and Bioenergy</i> , 2012, 36, 356-365.	5.7	15
61	Model-based inference for biomass estimation in a LiDAR sample survey in Hedmark County, Norway This article is one of a selection of papers from <i>Extending Forest Inventory and Monitoring over Space and Time.. Canadian Journal of Forest Research</i> , 2011, 41, 96-107.	1.7	147
62	Model-assisted estimation of biomass in a LiDAR sample survey in Hedmark County, Norway This article is one of a selection of papers from <i>Extending Forest Inventory and Monitoring over Space and Time.. Canadian Journal of Forest Research</i> , 2011, 41, 83-95.	1.7	139
63	Detection of small single trees in the forest-tundra ecotone using height values from airborne laser scanning. <i>Canadian Journal of Remote Sensing</i> , 2011, 37, 264-274.	2.4	35
64	Prediction of Timber Quality Parameters of Forest Stands by Means of Small Footprint Airborne Laser Scanner Data. <i>International Journal of Forest Engineering</i> , 2011, 22, 14-23.	0.8	10
65	Effects of different sensors and leaf-on and leaf-off canopy conditions on echo distributions and individual tree properties derived from airborne laser scanning. <i>Remote Sensing of Environment</i> , 2010, 114, 1445-1461.	11.0	74
66	Deriving forest monitoring variables from X-band InSAR SRTM height. <i>Canadian Journal of Remote Sensing</i> , 2010, 36, 68-79.	2.4	36
67	Classifying species of individual trees by intensity and structure features derived from airborne laser scanner data. <i>Remote Sensing of Environment</i> , 2009, 113, 1163-1174.	11.0	206
68	Models for predicting above-ground biomass of <i>Betula pubescens</i> spp. <i>czerepanovii</i> in mountain areas of southern Norway. <i>Scandinavian Journal of Forest Research</i> , 2009, 24, 318-332.	1.4	10
69	Weibull models for single-tree increment of Norway spruce, Scots pine, birch and other broadleaves in Norway. <i>Scandinavian Journal of Forest Research</i> , 2009, 24, 54-66.	1.4	25
70	Assessing effects of laser point density, ground sampling intensity, and field sample plot size on biophysical stand properties derived from airborne laser scanner data. <i>Canadian Journal of Forest Research</i> , 2008, 38, 1095-1109.	1.7	165
71	Measures of spatial forest structure derived from airborne laser data are associated with natural regeneration patterns in an uneven-aged spruce forest. <i>Forest Ecology and Management</i> , 2008, 255, 953-961.	3.2	22
72	Predicting the growth of stands of trees of mixed species and size: A matrix model for Norway. <i>Scandinavian Journal of Forest Research</i> , 2008, 23, 167-178.	1.4	74

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73	Estimating percentile-based diameter distributions in uneven-sized Norway spruce stands using airborne laser scanner data. <i>Scandinavian Journal of Forest Research</i> , 2007, 22, 33-47.	1.4	52
74	Single Tree Segmentation Using Airborne Laser Scanner Data in a Structurally Heterogeneous Spruce Forest. <i>Photogrammetric Engineering and Remote Sensing</i> , 2006, 72, 1369-1378.	0.6	222
75	Comparing regression methods in estimation of biophysical properties of forest stands from two different inventories using laser scanner data. <i>Remote Sensing of Environment</i> , 2005, 94, 541-553.	11.0	142
76	Estimating forest growth using canopy metrics derived from airborne laser scanner data. <i>Remote Sensing of Environment</i> , 2005, 96, 453-465.	11.0	153
77	Laser scanning of forest resources: the nordic experience. <i>Scandinavian Journal of Forest Research</i> , 2004, 19, 482-499.	1.4	386
78	Modeling and predicting aboveground biomass change in young forest using multi-temporal airborne laser scanner data. <i>Scandinavian Journal of Forest Research</i> , 0, , 1-12.	1.4	16
79	Identifying old Norway spruce and Scots pine trees by morphological traits and site characteristics. <i>Scandinavian Journal of Forest Research</i> , 0, , 1-13.	1.4	3