

# Lauri Mehtätalo

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6284988/publications.pdf>

Version: 2024-02-01

96  
papers

2,279  
citations

236925

25  
h-index

265206

42  
g-index

97  
all docs

97  
docs citations

97  
times ranked

2618  
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving the quality of landscape ecological forest planning by utilising advanced decision-support tools. <i>Forest Ecology and Management</i> , 2000, 132, 157-171.	3.2	129
2	Modeling height-diameter curves for prediction. <i>Canadian Journal of Forest Research</i> , 2015, 45, 826-837.	1.7	117
3	Responses of methanogenic and methanotrophic communities to warming in varying moisture regimes of two boreal fens. <i>Soil Biology and Biochemistry</i> , 2016, 97, 144-156.	8.8	92
4	A longitudinal height-diameter model for Norway spruce in Finland. <i>Canadian Journal of Forest Research</i> , 2004, 34, 131-140.	1.7	88
5	Moose ( <i>Alces alces</i> ) reacts to high summer temperatures by utilizing thermal shelters in boreal forests – an analysis based on airborne laser scanning of the canopy structure at moose locations. <i>Global Change Biology</i> , 2014, 20, 1115-1125.	9.5	85
6	Responses of phenology and biomass production of boreal fens to climate warming under different water-table level regimes. <i>Global Change Biology</i> , 2018, 24, 944-956.	9.5	80
7	Evaluating marginal and conditional predictions of taper models in the absence of calibration data. <i>Canadian Journal of Forest Research</i> , 2012, 42, 1383-1394.	1.7	78
8	Scenario analyses for the effects of harvesting intensity on development of forest resources, timber supply, carbon balance and biodiversity of Finnish forestry. <i>Forest Policy and Economics</i> , 2017, 80, 80-98.	3.4	77
9	Effects of contaminated soil on the growth performance of young <i>Salix</i> ( <i>Salix schwerinii</i> E. L. Wolf) and the potential for phytoremediation of heavy metals. <i>Journal of Environmental Management</i> , 2016, 183, 467-477.	7.8	58
10	Impacts of drainage, restoration and warming on boreal wetland greenhouse gas fluxes. <i>Science of the Total Environment</i> , 2019, 647, 169-181.	8.0	57
11	Warming impacts on boreal fen CO <sub>2</sub> exchange under wet and dry conditions. <i>Global Change Biology</i> , 2019, 25, 1995-2008.	9.5	56
12	Characterizing forest structural types and shelterwood dynamics from Lorenz-based indicators predicted by airborne laser scanning. <i>Canadian Journal of Forest Research</i> , 2013, 43, 1063-1074.	1.7	55
13	Comparing individual tree detection and the area-based statistical approach for the retrieval of forest stand characteristics using airborne laser scanning in Scots pine stands. <i>Canadian Journal of Forest Research</i> , 2011, 41, 583-598.	1.7	54
14	ALS-based estimation of plot volume and site index in a eucalyptus plantation with a nonlinear mixed-effect model that accounts for the clone effect. <i>Annals of Forest Science</i> , 2011, 68, 1085.	2.0	47
15	Key structural features of Boreal forests may be detected directly using L-moments from airborne lidar data. <i>Remote Sensing of Environment</i> , 2017, 194, 437-446.	11.0	47
16	Mixed-effects generalized height-diameter model for young silver birch stands on post-agricultural lands. <i>Forest Ecology and Management</i> , 2020, 460, 117901.	3.2	47
17	Parameter recovery vs. parameter prediction for the Weibull distribution validated for Scots pine stands in Finland. <i>Silva Fennica</i> , 2013, 47, .	1.3	36
18	Photosynthetic traits of <i>Sphagnum</i> and feather moss species in undrained, drained and rewetted boreal spruce swamp forests. <i>Ecology and Evolution</i> , 2014, 4, 381-396.	1.9	33

#	ARTICLE	IF	CITATIONS
19	Predicting and calibrating tree attributes by means of airborne laser scanning and field measurements. <i>Canadian Journal of Forest Research</i> , 2012, 42, 1896-1907.	1.7	32
20	Seasonal Succession of Fungi Associated with <i>Ips typographus</i> Beetles and Their Phoretic Mites in an Outbreak Region of Finland. <i>PLoS ONE</i> , 2016, 11, e0155622.	2.5	32
21	Comparing strategies for modeling tree diameter percentiles from remeasured plots. <i>Environmetrics</i> , 2008, 19, 529-548.	1.4	30
22	Height-diameter models for Scots pine and birch in Finland. <i>Silva Fennica</i> , 2005, 39, .	1.3	29
23	Correlations, distributions, and trends in forest inventory errors and their effects on forest planning. <i>Canadian Journal of Forest Research</i> , 2010, 40, 1386-1396.	1.7	28
24	Resolution dependence in an area-based approach to forest inventory with airborne laser scanning. <i>Remote Sensing of Environment</i> , 2019, 224, 192-201.	11.0	28
25	Forest inventories for small areas using drone imagery without in-situ field measurements. <i>Remote Sensing of Environment</i> , 2020, 237, 111404.	11.0	27
26	Eliminating the effect of overlapping crowns from aerial inventory estimates. <i>Canadian Journal of Forest Research</i> , 2006, 36, 1649-1660.	1.7	26
27	Testing the usability of truncated angle count sample plots as ground truth in airborne laser scanning-based forest inventories. <i>Forestry</i> , 2007, 80, 73-81.	2.3	25
28	The Response of Basal Area Growth of Scots Pine to Thinning: A Longitudinal Analysis of Tree-Specific Series Using a Nonlinear Mixed-Effects Model. <i>Forest Science</i> , 2014, 60, 636-644.	1.0	25
29	Matching remotely sensed and field-measured tree size distributions. <i>Canadian Journal of Forest Research</i> , 2015, 45, 353-363.	1.7	25
30	Combining tree height samples produced by airborne laser scanning and stand management records to estimate plot volume in <i>Eucalyptus</i> plantations. <i>Canadian Journal of Forest Research</i> , 2011, 41, 1649-1658.	1.7	23
31	Developing generalized, calibratable, mixed-effects meta-models for large-scale biomass prediction. <i>Canadian Journal of Forest Research</i> , 2014, 44, 648-656.	1.7	23
32	Responses of growth and leaf phenolics in European aspen ( <i>Populus tremula</i> ) to climate change during juvenile phase change. <i>Canadian Journal of Forest Research</i> , 2017, 47, 1350-1363.	1.7	23
33	Effects of cambial age, clone and climatic factors on ring width and ring density in Norway spruce ( <i>Picea abies</i> ) in southeastern Finland. <i>Forest Ecology and Management</i> , 2012, 263, 9-16.	3.2	22
34	Variation in photosynthetic properties among bog plants. <i>Botany</i> , 2016, 94, 1127-1139.	1.0	22
35	Species-specific temporal variation in photosynthesis as a moderator of peatland carbon sequestration. <i>Biogeosciences</i> , 2017, 14, 257-269.	3.3	22
36	Forest structure as a determinant of grouse brood occurrence – An analysis linking LiDAR data with presence/absence field data. <i>Forest Ecology and Management</i> , 2016, 380, 202-211.	3.2	21

#	ARTICLE	IF	CITATIONS
37	Ecological dimensions of airborne laser scanning – Analyzing the role of forest structure in moose habitat use within a year. <i>Remote Sensing of Environment</i> , 2016, 173, 238-247.	11.0	21
38	Estimating forest stand density and structure using Bayesian individual tree detection, stochastic geometry, and distribution matching. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2019, 152, 66-78.	11.1	20
39	Decline of the boreal willow grouse ( <i>Lagopus lagopus</i> ) has been accelerated by more frequent snow-free springs. <i>Scientific Reports</i> , 2020, 10, 6987.	3.3	19
40	Analyzing the effects of inventory errors on holding-level forest plans: the case of measurement error in the basal area of the dominated tree species. <i>Silva Fennica</i> , 2009, 43, .	1.3	19
41	Stand density estimators based on individual tree detection and stochastic geometry. <i>Canadian Journal of Forest Research</i> , 2016, 46, 1359-1366.	1.7	18
42	Production of glandular trichomes responds to water stress and temperature in silver birch ( <i>Betula pendula</i> ) leaves. <i>Canadian Journal of Forest Research</i> , 2017, 47, 1075-1081.	1.7	18
43	Airborne laser scanning for tree diameter distribution modelling: a comparison of different modelling alternatives in a tropical single-species plantation. <i>Forestry</i> , 2018, 91, 121-131.	2.3	18
44	Vegetation structure and photosynthesis respond rapidly to restoration in young coastal fens. <i>Ecology and Evolution</i> , 2016, 6, 6880-6891.	1.9	16
45	A Seven-Year Study of Phenolic Concentrations of the Dioecious <i>Salix myrsinifolia</i> . <i>Journal of Chemical Ecology</i> , 2018, 44, 416-430.	1.8	16
46	Remote sensing-assisted data assimilation and simultaneous inference for forest inventory. <i>Remote Sensing of Environment</i> , 2019, 234, 111431.	11.0	16
47	Affect Recognition in Code Review: An In-situ Biometric Study of Reviewer's Affect. <i>Journal of Systems and Software</i> , 2020, 159, 110434.	4.5	16
48	Rewetting of drained boreal spruce swamp forests results in rapid recovery of <i>Sphagnum</i> production. <i>Journal of Applied Ecology</i> , 2015, 52, 1355-1363.	4.0	15
49	Linear mixed-effects models and calibration applied to volume models in two rotations of <i>Eucalyptus grandis</i> plantations. <i>Canadian Journal of Forest Research</i> , 2016, 46, 132-141.	1.7	14
50	Determining maximum entropy in 3D remote sensing height distributions and using it to improve aboveground biomass modelling via stratification. <i>Remote Sensing of Environment</i> , 2021, 260, 112464.	11.0	14
51	The use of quantile trees in the prediction of the diameter distribution of a stand. <i>Silva Fennica</i> , 2006, 40, .	1.3	14
52	Differences in growth and wood density in clones and provenance hybrid clones of Norway spruce. <i>Canadian Journal of Forest Research</i> , 2017, 47, 389-399.	1.7	13
53	Seemingly Unrelated Mixed-Effects Biomass Models for Young Silver Birch Stands on Post-Agricultural Lands. <i>Forests</i> , 2020, 11, 381.	2.1	13
54	Analysing the agreement between an Airborne Laser Scanning based forest inventory and a control inventory – a case study in the state owned forests in Finland. <i>Silva Fennica</i> , 2012, 46, .	1.3	13

#	ARTICLE	IF	CITATIONS
55	The effects of forest management on terrestrial habitats of a rare and a common newt species. European Journal of Forest Research, 2015, 134, 377-388.	2.5	12
56	An approach to optimizing field data collection in an inventory by compartments. Canadian Journal of Forest Research, 2005, 35, 100-112.	1.7	11
57	Inoptimality losses in forest management decisions caused by errors in an inventory based on airborne laser scanning and aerial photographs. Canadian Journal of Forest Research, 2010, 40, 2427-2438.	1.7	11
58	Combining a predicted diameter distribution with an estimate based on a small sample of diameters. Canadian Journal of Forest Research, 2011, 41, 750-762.	1.7	11
59	Performance of late succession species along a chronosequence: Environment does not exclude <i>Sphagnum fuscum</i> from the early stages of mire development. Journal of Vegetation Science, 2015, 26, 291-301.	2.2	11
60	Growth, survival and interspecific social learning in the first hatchery generation of Eurasian perch ( <i>Perca fluviatilis</i> ). Aquaculture, 2017, 466, 64-71.	3.5	11
61	Varying Vegetation Composition, Respiration and Photosynthesis Decrease Temporal Variability of the CO <sub>2</sub> Sink in a Boreal Bog. Ecosystems, 2020, 23, 842-858.	3.4	11
62	Detecting moose ( <i>Alces alces</i> ) browsing damage in young boreal forests from airborne laser scanning data. Canadian Journal of Forest Research, 2016, 46, 10-19.	1.7	9
63	Response of wildlife to bush thinning on the north central freehold farmlands of Namibia. Forest Ecology and Management, 2020, 473, 118330.	3.2	9
64	Generalizing Sample Tree Information. , 2006, , 85-106.		9
65	Variability and patterns in forest soil and vegetation characteristics after prescribed burning in clear-cuts and restoration burnings. Silva Fennica, 2017, 51, .	1.3	9
66	Effects of spacing and genetic entry on radial growth and ring density development in Scots pine ( <i>Pinus sylvestris</i> L.). Annals of Forest Science, 2011, 68, 1233-1243.	2.0	8
67	Estimating Tree Height Distribution Using Low-Density ALS Data With and Without Training Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 1432-1441.	4.9	8
68	Anthropogenic environmental changes induce introgression in sympatric whitefish ecotypes. Biological Journal of the Linnean Society, 2017, 121, 613-626.	1.6	8
69	The usefulness of small-area-based socioeconomic characteristics in assessing the treatment outcomes of type 2 diabetes patients: a register-based mixed-effect study. BMC Public Health, 2018, 18, 1258.	2.9	8
70	Growth Equations in Forest Research: Mathematical Basis and Model Similarities. Current Forestry Reports, 2021, 7, 230-244.	7.4	8
71	Analysing space-time tree interdependencies based on individual tree growth functions. Stochastic Environmental Research and Risk Assessment, 2013, 27, 1673-1681.	4.0	6
72	Phytochemical Shift from Condensed Tannins to Flavonoids in Transgenic <i>Betula pendula</i> Decreases Consumption and Growth but Improves Growth Efficiency of <i>Epirrita autumnata</i> Larvae. Journal of Chemical Ecology, 2020, 46, 217-231.	1.8	6

#	ARTICLE	IF	CITATIONS
73	Field calibration of merchantable and sawlog volumes in forest inventories based on airborne laser scanning. <i>Canadian Journal of Forest Research</i> , 2020, 50, 1352-1364.	1.7	6
74	Restoration thinning reduces bush encroachment on freehold farmlands in north-central Namibia. <i>Forestry</i> , 2021, 94, 551-564.	2.3	6
75	A Model-Based Approach for Airborne Laser Scanning Inventory: Application for Square Grid Spatial Pattern. <i>Forest Science</i> , 2012, 58, 106-118.	1.0	5
76	Seasonal, medium-term and daily patterns of tree diameter growth in response to climate. <i>Forestry</i> , 2020, 93, 133-149.	2.3	5
77	Does parental angling selection affect the behavior or metabolism of brown trout parr?. <i>Ecology and Evolution</i> , 2021, 11, 2630-2644.	1.9	5
78	Accumulation of phenolics and growth of dioecious <i>Populus tremula</i> (L.) seedlings over three growing seasons under elevated temperature and UVB radiation. <i>Plant Physiology and Biochemistry</i> , 2021, 165, 114-122.	5.8	5
79	The longevity of Norway spruce responses to boron fertilisation. <i>Forest Ecology and Management</i> , 2013, 307, 90-100.	3.2	4
80	Grounds for improving the implementation of game-oriented forest management – A double sampling survey of Finnish forest owners and professionals. <i>Forest Policy and Economics</i> , 2020, 119, 102266.	3.4	4
81	Horvitz–Thompson–like estimation with distance–based detection probabilities for circular plot sampling of forests. <i>Biometrics</i> , 2021, 77, 715-728.	1.4	4
82	A nonlinear mixed model approach to predict energy expenditure from heart rate. <i>Physiological Measurement</i> , 2021, 42, 035001.	2.1	4
83	Mixed-effect Bayesian network reveals personal effects of nutrition. <i>Scientific Reports</i> , 2021, 11, 12016.	3.3	4
84	A Model-Based Approach for the Recovery of Forest Attributes Using Airborne Laser Scanning Data. <i>Managing Forest Ecosystems</i> , 2014, , 193-211.	0.9	4
85	Applying polynomial regression modeling to productivity analysis of sustainable stump harvesting. <i>Scandinavian Journal of Forest Research</i> , 2017, 32, 204-212.	1.4	3
86	Responses in growth and phenolics accumulation to lateral bud removal in male and female saplings of <i>Populus tremula</i> (L.) under simulated climate change. <i>Science of the Total Environment</i> , 2020, 704, 135462.	8.0	3
87	Predicting bilberry and cowberry yields using airborne laser scanning and other auxiliary data combined with National Forest Inventory field plot data. <i>Forest Ecology and Management</i> , 2021, 502, 119737.	3.2	3
88	Refining and evaluating a Horvitz–Thompson-like stand density estimator in individual tree detection based on airborne laser scanning. <i>Canadian Journal of Forest Research</i> , 2022, 52, 527-538.	1.7	3
89	Model correlation in stochastic forest simulators – A case of multilevel multivariate model for seedling establishment. <i>Ecological Modelling</i> , 2009, 220, 545-555.	2.5	2
90	Modeling Forest Tree Data Using Sequential Spatial Point Processes. <i>Journal of Agricultural, Biological, and Environmental Statistics</i> , 2022, 27, 88-108.	1.4	2

#	ARTICLE	IF	CITATIONS
91	Two Mechanisms Drive Changes in Boreal Peatland Photosynthesis Following Long-Term Water Level Drawdown: Species Turnover and Altered Photosynthetic Capacity. <i>Ecosystems</i> , 0, , 1.	3.4	2
92	Effects of forest inventory errors on the area and spatial layout of harvest blocks. <i>European Journal of Forest Research</i> , 2012, 131, 1943-1955.	2.5	1
93	Development of height growth and frost hardiness for one-year-old Norway spruce seedlings in greenhouse conditions in response to elevated temperature and atmospheric CO <sub>2</sub> concentration. <i>Silva Fennica</i> , 2018, 52, .	1.3	1
94	Modelling Gaze Behaviour in Subtitle Processing. <i>Journal of Audiovisual Translation</i> , 2021, 4, 71-95.	1.0	0
95	<i>In-situ</i> calibration of stand level merchantable and sawlog volumes using cut-to-length harvester measurements and airborne laser scanning data. <i>Forestry</i> , 2022, 95, 105-117.	2.3	0
96	Genetic modification of the flavonoid pathway alters growth and reveals flexible responses to enhanced UVB – Role of foliar condensed tannins. <i>Plant-Environment Interactions</i> , 2021, 2, 1-15.	1.5	0