Eero Nikinmaa

List of Publications by Year
in descending order

75 papers	4,144 citations	94433 37 h-index	123424 61 g-index
75 all docs	75 docs citations	75 times ranked	5031 citing authors

#	Article	IF	Citations
1	Surfaceâ€“atmosphere interactions over complex urban terrain in Helsinki, Finland. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 188.	1.6	125
2	Forest floor versus ecosystem CO₂ exchange along boreal ecotone between upland forest and lowland mire. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 153.	1.6	14
3	Linking stem growth respiration to the seasonal course of stem growth and GPP of Scots pine. Tree Physiology, 2018, 38, 1356-1370.	3.1	12
4	A study of crown development mechanisms using a shoot-based tree model and segmented terrestrial laser scanning data. Annals of Botany, 2018, 122, 423-434.	2.9	5
5	High carbon losses from established growing sites delay the carbon sequestration benefits of street tree plantings â€“ A case study in Helsinki, Finland. Urban Forestry and Urban Greening, 2017, 26, 85-94.	5.3	15
6	A steady-state stomatal model of balanced leaf gas exchange, hydraulics and maximal sourceâ€“sink flux. Tree Physiology, 2017, 37, 851-868.	3.1	43
7	Gradients and dynamics of inner bark and needle osmotic potentials in Scots pine (<scp><i>Pinus) Tj ETQq1 1 0.784314 rgBT /Overlock Environment, 2017, 40, 2160-2173.	5.7	22
8	Reliability of temperature signal in various climate indicators from northern Europe. PLoS ONE, 2017, 12, e0180042.	2.5	5
9	Xylem diameter changes during osmotic stress, desiccation and freezing inPinus sylvestrisandPopulus tremula. Tree Physiology, 2016, 37, 491-500.	3.1	11
10	Environmental and crown related factors affecting street tree transpiration in Helsinki, Finland. Urban Ecosystems, 2016, 19, 1693-1715.	2.4	20
11	Separating waterâ€potential induced swelling and shrinking from measured radial stem variations reveals a cambial growth and osmotic concentration signal. Plant, Cell and Environment, 2016, 39, 233-244.	5.7	79
12	Irreversible diameter change of wood segments correlates with other methods for estimating frost tolerance of living cells in freeze-thaw experiment: a case study with seven urban tree species in Helsinki. Annals of Forest Science, 2015, 72, 1089-1098.	2.0	16
13	An analysis of Granier sap flow method, its sensitivity to heat storage and a new approach to improve its time dynamics. Agricultural and Forest Meteorology, 2015, 211-212, 2-12.	4.8	42
14	<scp>CASSIA</scp> â€“ a dynamic model for predicting intraâ€annual sink demand and interannual growth variation in <scp>S</scp>cots pine. New Phytologist, 2015, 206, 647-659.	7.3	91
15	Dynamics of leaf gas exchange, chlorophyll fluorescence and stem diameter changes during freezing and thawing of Scots pine seedlings. Tree Physiology, 2015, 35, 1314-1324.	3.1	13
16	Urban wetland parks in Finland: improving water quality and creating endangered habitats. International Journal of Biodiversity Science, Ecosystem Services & Management, 2015, 11, 46-60.	2.9	25
17	Field and controlled environment measurements show strong seasonal acclimation in photosynthesis and respiration potential in boreal Scots pine. Frontiers in Plant Science, 2014, 5, 717.	3.6	57
18	Quantitative assessment of automatic reconstructions of branching systems obtained from laser scanning. Annals of Botany, 2014, 114, 853-862.	2.9	40

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19	Precipitation and net ecosystem exchange are the most important drivers of DOC flux in upland boreal catchments. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1861-1878.	3.0	27
20	Functionalâ€“structural plant models: a growing paradigm for plant studies. Annals of Botany, 2014, 114, 599-603.	2.9	65
21	Measured and modelled albedos in Finnish boreal forest stands of different species, structure and understory. Ecological Modelling, 2014, 284, 10-18.	2.5	26
22	Changes in biogeochemistry and carbon fluxes in a boreal forest after the clear-cutting and partial burning of slash. Agricultural and Forest Meteorology, 2014, 188, 33-44.	4.8	67
23	Aboveâ€ground woody carbon sequestration measured from tree rings is coherent with net ecosystem productivity at five eddyâ€covariance sites. New Phytologist, 2014, 201, 1289-1303.	7.3	152
24	Dynamics of leaf gas exchange, xylem and phloem transport, water potential and carbohydrate concentration in a realistic 3-D model tree crown. Annals of Botany, 2014, 114, 653-666.	2.9	49
25	A temperature-controlled spectrometer system for continuous and unattended measurements of canopy spectral radiance and reflectance. International Journal of Remote Sensing, 2014, 35, 1769-1785.	2.9	32
26	The role of the residential urban forest in regulating throughfall: A case study in Raleigh, North Carolina, USA. Landscape and Urban Planning, 2013, 119, 91-103.	7.5	72
27	Concurrent measurements of change in the bark and xylem diameters of trees reveal a phloemâ€generated turgor signal. New Phytologist, 2013, 198, 1143-1154.	7.3	92
28	Station for Measuring Ecosystem-Atmosphere Relations: SMEAR. , 2013, , 471-487.		73
29	How to Utilise the Knowledge of Causal Responses?. , 2013, , 397-469.		0
30	Dynamics of Carbon and Nitrogen Fluxes and Pools in Forest Ecosystem. , 2013, , 349-396.		3
31	Structural Regularities in Trees. , 2013, , 329-347.		0
32	Fluxes of Carbon, Water and Nutrients. , 2013, , 225-328.		0
33	Processes in Living Structures. , 2013, , 43-223.		2
34	Assimilate transport in phloem sets conditions for leaf gas exchange. Plant, Cell and Environment, 2013, 36, 655-669.	5.7	161
35	Scaling of xylem and phloem transport capacity and resource usage with tree size. Frontiers in Plant Science, 2013, 4, 496.	3.6	52
36	Duration of shoot elongation in Scots pine varies within the crown and between years. Annals of Botany, 2013, 112, 1181-1191.	2.9	19

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37	Contributions of leaf photosynthetic capacity, leaf angle and self-shading to the maximization of net photosynthesis in Acer saccharum: a modelling assessment. Annals of Botany, 2012, 110, 731-741.	2.9	28
38	Physiology of the seasonal relationship between the photochemical reflectance index and photosynthetic light use efficiency. Oecologia, 2012, 170, 313-323.	2.0	119
39	Understanding trait interactions and their impacts on growth in Scots pine branches across Europe. Functional Ecology, 2012, 26, 541-549.	3.6	52
40	Post-transplant crown allometry and shoot growth of two species of street trees. Urban Forestry and Urban Greening, 2011, 10, 87-94.	5.3	9
41	A carbon costâ€“gain model explains the observed patterns of xylem safety and efficiency. Plant, Cell and Environment, 2011, 34, 1819-1834.	5.7	40
42	A physiological model of softwood cambial growth. Tree Physiology, 2010, 30, 1235-1252.	3.1	96
43	Capacitive effect of cavitation in xylem conduits: results from a dynamic model. Plant, Cell and Environment, 2009, 32, 10-21.	5.7	115
44	Invited Talk: Functional Structural Plant Models - Case LIGNUM. , 2009, , .		5
45	Linking xylem diameter variations with sap flow measurements. Plant and Soil, 2008, 305, 77-90.	3.7	56
46	Leaf area index is the principal scaling parameter for both gross photosynthesis and ecosystem respiration of Northern deciduous and coniferous forests. Tellus, Series B: Chemical and Physical Meteorology, 2008, 60, 129-142.	1.6	75
47	Developing an empirical model of stand GPP with the LUE approach: analysis of eddy covariance data at five contrasting conifer sites in Europe. Global Change Biology, 2008, 14, 92-108.	9.5	132
48	Seasonal acclimation of photosystem II in Pinus sylvestris. I. Estimating the rate constants of sustained thermal energy dissipation and photochemistry. Tree Physiology, 2008, 28, 1475-1482.	3.1	30
49	Seasonal acclimation of photosystem II in Pinus sylvestris. II. Using the rate constants of sustained thermal energy dissipation and photochemistry to study the effect of the light environment. Tree Physiology, 2008, 28, 1483-1491.	3.1	47
50	Toward extension of a single tree functional - structural model of Scots pine to stand level: effect of the canopy of randomly distributed, identical trees on development of tree structure. Functional Plant Biology, 2008, 35, 964.	2.1	37
51	Tree variables related to growth response and acclimation of advance regeneration of Norway spruce and other coniferous species after release. Forest Ecology and Management, 2007, 250, 56-63.	3.2	30
52	Effects of sink removal on transpiration at the treeline: Implications for the growth limitation hypothesis. Environmental and Experimental Botany, 2007, 60, 334-339.	4.2	15
53	Modelling five years of weather-driven variation of GPP in a boreal forest. Agricultural and Forest Meteorology, 2006, 139, 382-398.	4.8	87
54	Forest floor vegetation plays an important role in photosynthetic production of boreal forests. Forest Ecology and Management, 2006, 221, 241-248.	3.2	154

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55	Wintertime photosynthesis and water uptake in a boreal forest. Tree Physiology, 2006, 26, 749-757.	3.1	117
56	Refilling of embolised conduits as a consequence of 'MÃ¼nch water' circulation. Functional Plant Biology, 2006, 33, 949.	2.1	44
57	Crown architecture of grafted Stone pine (Pinus pinea L.): shoot growth and bud differentiation. Trees - Structure and Function, 2005, 19, 15-25.	1.9	35
58	Modeling the dynamics of pressure propagation and diameter variation in tree sapwood. Tree Physiology, 2005, 25, 1091-1099.	3.1	41
59	Growth of advance regeneration of Norway spruce after clear-cutting. Tree Physiology, 2005, 25, 793-801.	3.1	17
60	Recovery of advance regeneration after disturbances: Acclimation of needle characteristics in Picea abies. Scandinavian Journal of Forest Research, 2005, 20, 112-121.	1.4	11
61	Effects of tree size and position on pipe model ratios in Scots pine. Canadian Journal of Forest Research, 2005, 35, 1294-1304.	1.7	40
62	Acclimation of photosynthetic capacity in Scots pine to the annual cycle of temperature. Tree Physiology, 2004, 24, 369-376.	3.1	169
63	Use of modeled photosynthesis and decomposition to describe tree growth at the northern tree line. Tree Physiology, 2004, 24, 193-204.	3.1	34
64	Air temperature triggers the recovery of evergreen boreal forest photosynthesis in spring. Global Change Biology, 2003, 9, 1410-1426.	9.5	273
65	Crown rise due to competition drives biomass allocation in silver birch. Canadian Journal of Forest Research, 2003, 33, 2395-2404.	1.7	80
66	Refilling of a Hydraulically Isolated Embolized Xylem Vessel: Model Calculations. Annals of Botany, 2003, 91, 419-428.	2.9	66
67	Shoot growth and crown development: effect of crown position in three-dimensional simulations. Tree Physiology, 2003, 23, 129-136.	3.1	44
68	Patterns of above- and below-ground response of understory conifer release 6 years after partial cutting. Canadian Journal of Forest Research, 2002, 32, 255-265.	1.7	81
69	Application of the Functional-Structural Tree Model LIGNUM to Sugar Maple Saplings (Acer) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	2.9	46
70	Adaptation of the LIGNUM model for simulations of growth and light response in Jack pine. Forest Ecology and Management, 2001, 150, 279-291.	3.2	22
71	Effects of light availability and sapling size on the growth, biomass allocation, and crown morphology of understory sugar maple, yellow birch, and beech. Ecoscience, 2000, 7, 345-356.	1.4	85
72	Components of functional-structural tree models. Annals of Forest Science, 2000, 57, 399-412.	2.0	174

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73	Effect of branch position and light availability on shoot growth of understory sugar maple and yellow birch saplings. Canadian Journal of Botany, 2000, 78, 1077-1085.	1.1	35
74	Evaluation of importance of sapwood senescence on tree growth using the model Lignum.. Silva Fennica, 1997, 31, .	1.3	24
75	Foliage areaâ€“sapwood area relationships of Scots pine (<i>Pinus</i><i>sylvestris</i>) trees in different climates. Canadian Journal of Forest Research, 1994, 24, 2263-2268.	1.7	52