Marcel Van Oijen

List of Publications by Year in descending order

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94 papers

4,343 citations

34 h-index 62 g-index

110 all docs

110 docs citations

110 times ranked

5664 citing authors

#	Article	IF	CITATIONS
1	Inference of spatial heterogeneity in surface fluxes from eddy covariance data: A case study from a subarctic mire ecosystem. Agricultural and Forest Meteorology, 2020, 280, 107783.	1.9	17
2	Probabilistic drought risk analysis for even-aged forests., 2020,, 159-176.		0
3	Assessing the accuracy and robustness of a process-based model for coffee agroforestry systems in Central America. Agroforestry Systems, 2020, 94, 2033-2051.	0.9	13
4	Bayesian Compendium. , 2020, , .		12
5	Organizing principles for vegetation dynamics. Nature Plants, 2020, 6, 444-453.	4.7	95
6	BASGRA_N: A model for grassland productivity, quality and greenhouse gas balance. Ecological Modelling, 2020, 417, 108925.	1.2	12
7	Identifying causes of low persistence of perennial ryegrass (<i>Lolium perenne</i>) dairy pasture using the Basic Grassland model (BASGRA). Grass and Forage Science, 2020, 75, 45-63.	1.2	15
8	Carbon–nitrogen interactions in European forests and semi-natural vegetation – Part 1: Fluxes and budgets of carbon, nitrogen and greenhouse gases from ecosystem monitoring and modelling. Biogeosciences, 2020, 17, 1583-1620.	1.3	21
9	Carbon–nitrogen interactions in European forests and semi-natural vegetation – Part 2: Untangling climatic, edaphic, management and nitrogen deposition effects on carbon sequestration potentials. Biogeosciences, 2020, 17, 1621-1654.	1.3	18
10	Incorporating Biodiversity into Biogeochemistry Models to Improve Prediction of Ecosystem Services in Temperate Grasslands: Review and Roadmap. Agronomy, 2020, 10, 259.	1.3	20
11	Simulation of timothy nutritive value: A comparison of three process-based models. Field Crops Research, 2019, 231, 81-92.	2.3	9
12	Tools for Landscape Science: Theory, Models and Data. Innovations in Landscape Research, 2019, , $221-232$.	0.2	0
13	Bayesian calibration of simple forest models with multiplicative mathematical structure: A case study with two Light Use Efficiency models in an alpine forest. Ecological Modelling, 2018, 371, 90-100.	1.2	3
14	Global sensitivity and uncertainty analysis of an atmospheric chemistry transport model: the FRAME model (version 9.15.0) as a case study. Geoscientific Model Development, 2018, 11, 1653-1664.	1.3	17
15	Modelling grass yields in northern climates – a comparison of three growth models for timothy. Field Crops Research, 2018, 224, 37-47.	2.3	17
16	Estimation of gross land-use change and its uncertainty using a Bayesian data assimilation approach. Biogeosciences, 2018, 15, 1497-1513.	1.3	3
17	Effects of Climate Change on Grassland Biodiversity and Productivity: The Need for a Diversity of Models. Agronomy, 2018, 8, 14.	1.3	46
18	Impact analysis of climate data aggregation at different spatial scales on simulated net primary productivity for croplands. European Journal of Agronomy, 2017, 88, 41-52.	1.9	27

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19	Correcting errors from spatial upscaling of nonlinear greenhouse gas flux models. Environmental Modelling and Software, 2017, 94, 157-165.	1.9	9
20	Bayesian Methods for Quantifying and Reducing Uncertainty and Error in Forest Models. Current Forestry Reports, 2017, 3, 269-280.	3.4	35
21	Estimation of cumulative fluxes of nitrous oxide: uncertainty in temporal upscaling and emission factors. European Journal of Soil Science, 2017, 68, 400-411.	1.8	41
22	Sensitivity analysis and Bayesian calibration for testing robustness of the BASGRA model in different environments. Ecological Modelling, 2017, 359, 80-91.	1.2	10
23	Modelling responses of forages to climate change with a focus on nutritive value. Advances in Animal Biosciences, 2016, 7, 227-228.	1.0	0
24	Modeling European ruminant production systems: Facing the challenges of climate change. Agricultural Systems, 2016, 147, 24-37.	3.2	40
25	Integrating parameter uncertainty of a process-based model in assessments of climate change effects on forest productivity. Climatic Change, 2016, 137, 395-409.	1.7	24
26	Toward a Bayesian procedure for using process-based models in plant breeding, with application to ideotype design. Euphytica, 2016, 207, 627-643.	0.6	24
27	Process-based simulation of growth and overwintering of grassland using the BASGRA model. Ecological Modelling, 2016, 335, 1-15.	1.2	26
28	A probabilistic risk assessment for the vulnerability of the European carbon cycle to weather extremes: the ecosystem perspective. Biogeosciences, 2015, 12, 1813-1831.	1.3	10
29	Impact of droughts on the carbon cycle in European vegetation: a probabilistic risk analysis using six vegetation models. Biogeosciences, 2014, 11, 6357-6375.	1.3	32
30	Analysis of uncertainties in the estimates of nitrous oxide and methane emissions in the UK's greenhouse gas inventory for agriculture. Atmospheric Environment, 2014, 82, 94-105.	1.9	31
31	Bayesian calibration, comparison and averaging of six forest models, using data from Scots pine stands across Europe. Forest Ecology and Management, 2013, 289, 255-268.	1.4	79
32	Selecting Parameters for Bayesian Calibration of a Process-Based Model: A Methodology Based on Canonical Correlation Analysis. SIAM-ASA Journal on Uncertainty Quantification, 2013, 1, 370-385.	1.1	21
33	Using a Bayesian framework and global sensitivity analysis to identify strengths and weaknesses of two process-based models differing in representation of autotrophic respiration. Environmental Modelling and Software, 2013, 42, 99-115.	1.9	13
34	A novel probabilistic risk analysis to determine the vulnerability of ecosystems to extreme climatic events. Environmental Research Letters, 2013, 8, 015032.	2.2	29
35	Environmental change impacts on the C- and N-cycle of European forests: a model comparison study. Biogeosciences, 2013, 10, 1751-1773.	1.3	21
36	Using stand-scale forest models for estimating indicators of sustainable forest management. Forest Ecology and Management, 2012, 285, 164-178.	1.4	48

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37	Bayesian comparison of six different temperature-based budburst models for four temperate tree species. Ecological Modelling, 2012, 230, 92-100.	1.2	74
38	A Bayesian framework for model calibration, comparison and analysis: Application to four models for the biogeochemistry of a Norway spruce forest. Agricultural and Forest Meteorology, 2011, 151, 1609-1621.	1.9	74
39	Modelling the hydrological behaviour of a coffee agroforestry basin in Costa Rica. Hydrology and Earth System Sciences, 2011, 15, 369-392.	1.9	44
40	Models for supporting forest management in a changing environment. Forest Systems, 2011, 3, 8.	0.1	43
41	Coffee agroforestry systems in Central America: II. Development of a simple process-based model and preliminary results. Agroforestry Systems, 2010, 80, 361-378.	0.9	63
42	Coffee agroforestry systems in Central America: I. A review of quantitative information on physiological and ecological processes. Agroforestry Systems, 2010, 80, 341-359.	0.9	33
43	Toward Bayesian uncertainty quantification for forestry models used in the United Kingdom Greenhouse Gas Inventory for land use, land use change, and forestry. Climatic Change, 2010, 103, 55-67.	1.7	23
44	Modelling the dynamics of snow cover, soil frost and surface ice in Norwegian grasslands. Polar Research, 2010, 29, 110-126.	1.6	25
45	On the relative magnitudes of photosynthesis, respiration, growth and carbon storage in vegetation. Annals of Botany, 2010, 105, 793-797.	1.4	77
46	Toward Bayesian uncertainty quantification for forestry models used in the United Kingdom Greenhouse Gas Inventory for land use, land use change, and forestry., 2010,, 55-67.		2
47	Bayesian calibration as a tool for initialising the carbon pools of dynamic soil models. Soil Biology and Biochemistry, 2009, 41, 2579-2583.	4.2	60
48	Bayesian calibration of the nitrous oxide emission module of an agro-ecosystem model. Agriculture, Ecosystems and Environment, 2009, 133, 208-222.	2.5	79
49	The impact of nitrogen deposition on carbon sequestration by European forests and heathlands. Forest Ecology and Management, 2009, 258, 1814-1823.	1.4	309
50	Modelling impacts of changes in carbon dioxide concentration, climate and nitrogen deposition on carbon sequestration by European forests and forest soils. Forest Ecology and Management, 2009, 258, 1794-1805.	1.4	72
51	Uncertainties in the relationship between atmospheric nitrogen deposition and forest carbon sequestration. Global Change Biology, 2008, 14, 2057-2063.	4.2	166
52	Bayesian calibration of the VSD soil acidification model using European forest monitoring data. Geoderma, 2008, 146, 475-488.	2.3	41
53	Integrating remote sensing datasets into ecological modelling: a Bayesian approach. International Journal of Remote Sensing, 2008, 29, 1295-1315.	1.3	36
54	Response to the Environment: Carbon Dioxide. , 2007, , 395-413.		6

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55	The likely impact of elevated [CO 2], nitrogen deposition, increased temperature and management on carbon sequestration in temperate and boreal forest ecosystems: a literature review. New Phytologist, 2007, 173, 463-480.	3.5	579
56	The effect of nitrogen enrichment on the carbon sink in coniferous forests: Uncertainty and sensitivity analyses of three ecosystem models. Water, Air and Soil Pollution, 2005, 4, 67-74.	0.8	2
57	Process-Based Modeling of Timothy Regrowth. Agronomy Journal, 2005, 97, 1295-1303.	0.9	23
58	A comparison of two modelling studies of environmental effects on forest carbon stocks across Europe. Annals of Forest Science, 2005, 62, 911-923.	0.8	25
59	Bayesian calibration of process-based forest models: bridging the gap between models and data. Tree Physiology, 2005, 25, 915-927.	1.4	294
60	Timothy regrowth, tillering and leaf area dynamics following spring harvest at two growth stages. Field Crops Research, 2005, 93, 51-63.	2.3	29
61	Extension of a biochemical model for the generalized stoichiometry of electron transport limited C3 photosynthesis. Plant, Cell and Environment, 2004, 27, 1211-1222.	2.8	85
62	Simple equations for dynamic models of the effects of CO2 and O3 on light-use efficiency and growth of crops. Ecological Modelling, 2004, 179, 39-60.	1.2	32
63	The Effect of Nitrogen Enrichment on the Carbon Sink in Coniferous Forests: Uncertainty and Sensitivity Analyses of Three Ecosystem Models. Water, Air and Soil Pollution, 2004, 4, 67-74.	0.8	21
64	Model simulation of effects of changes in climate and atmospheric CO2 and O3 on tuber yield potential of potato (cv. Bintje) in the European Union. Agriculture, Ecosystems and Environment, 2003, 94, 141-157.	2.5	44
65	Gaia as a complex adaptive system. Philosophical Transactions of the Royal Society B: Biological Sciences, 2002, 357, 683-695.	1.8	92
66	Modelling the dependence of European potato yields on changes in climate and CO2. Agricultural and Forest Meteorology, 2002, 112, 217-231.	1.9	20
67	On the use of specific publication criteria for papers on process-based modelling in plant science. Field Crops Research, 2002, 74, 197-205.	2.3	22
68	Analysis of the experimental variability in wheat responses to elevated CO2 and temperature. Agriculture, Ecosystems and Environment, 2002, 93, 227-247.	2.5	23
69	Temperature Sensitivity of Photosynthesis in Lolium perenne Swards: A Comparison of Two Methods for Deriving Photosynthetic Parameters from in vivo Measurements. Photosynthetica, 2002, 40, 405-413.	0.9	4
70	Timothy growth in Scandinavia: combining quantitative information and simulation modelling. New Phytologist, 2001, 151, 355-367.	3.5	52
71	Analysis of maize growth for different irrigation strategies in northeastern Spain. European Journal of Agronomy, 2000, 12, 225-238.	1.9	42
72	A Generic Equation for Nitrogen-limited Leaf Area Index and its Application in Crop Growth Models for Predicting Leaf Senescence. Annals of Botany, 2000, 85, 579-585.	1.4	67

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73	Dynamics of Vertical Leaf Nitrogen Distribution in a Vegetative Wheat Canopy. Impact on Canopy Photosynthesis. Annals of Botany, 2000, 86, 821-831.	1.4	134
74	Effects of elevated CO2 concentration on photosynthetic acclimation and productivity of two potato cultivars grown in open-top chambers. Functional Plant Biology, 2000, 27, 1119.	1.1	27
75	LINGRA-CC: a sink-source model to simulate the impact of climate change and management on grassland productivity. New Phytologist, 1999, 144, 359-368.	3.5	39
76	Do openâ€top chambers overestimate the effects of rising CO 2 on plants? An analysis using spring wheat. Global Change Biology, 1999, 5, 411-421.	4.2	69
77	Climatic conditions and concentrations of carbon dioxide and air pollutants during â€~ESPACE—wheat' experiments. European Journal of Agronomy, 1999, 10, 163-169.	1.9	12
78	Photosynthetic responses in spring wheat grown under elevated CO2 concentrations and stress conditions in the European, multiple-site experiment †ESPACE-wheat†™. European Journal of Agronomy, 1999, 10, 205-214.	1.9	35
79	Chlorophyll content of spring wheat flag leaves grown under elevated CO2 concentrations and other environmental stresses within the â€~ESPACE-wheat' project. European Journal of Agronomy, 1999, 10, 197-203.	1.9	74
80	Effects on nutrients and on grain quality in spring wheat crops grown under elevated CO2 concentrations and stress conditions in the European, multiple-site experiment â€~ESPACE-wheat'. European Journal of Agronomy, 1999, 10, 215-229.	1.9	132
81	Simulation of growth and development processes of spring wheat in response to CO2 and ozone for different sites and years in Europe using mechanistic crop simulation models. European Journal of Agronomy, 1999, 10, 231-247.	1.9	48
82	The effects of climatic variation in Europe on the yield response of spring wheat cv. Minaret to elevated CO2 and O3: an analysis of open-top chamber experiments by means of two crop growth simulation models. European Journal of Agronomy, 1999, 10, 249-264.	1.9	62
83	Effects of elevated CO2 on development and morphology of spring wheat grown in cooled and non-cooled open-top chambers. Functional Plant Biology, 1998, 25, 617.	1.1	13
84	Level of threshold weed density does not affect the long-term frequency of weed control. Crop Protection, 1997, 16, 273-278.	1.0	26
85	Scenario studies for future agriculture and crop protection. European Journal of Plant Pathology, 1997, 103, 197-201.	0.8	17
86	A comparison of soil core sampling and minirhizotrons to quantify root development of field-grown potatoes. Plant and Soil, 1996, 182, 301-312.	1.8	24
87	Analyses of the effects of potato cyst nematodes (Globodera pallida) on growth, physiology and yield of potato cultivars in field plots at three levels of soil compaction. Annals of Applied Biology, 1995, 127, 499-520.	1.3	15
88	Modelling the interaction between potato crops and cyst nematodes. Current Issues in Production Ecology, 1995, , 185-195.	0.6	2
89	Simulation models of potato late blight. Current Issues in Production Ecology, 1995, , 237-250.	0.6	3
90	Light use efficiencies of potato cultivars with late blight (Phytophthora infestans). Potato Research, 1991, 34, 123-132.	1.2	26

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91	Photosynthesis is not impaired in healthy tissue of blighted potato plants. European Journal of Plant Pathology, 1990, 96, 55-63.	0.5	27
92	A simulation model of root and shoot growth at different levels of nitrogen availability. Plant and Soil, 1988, 111, 191-197.	1.8	13
93	A simulation model of growth and C and N metabolism in young maize plants. , 1986, , 323-327.		4
94	Challenges in scaling up greenhouse gas fluxes: Experience from the UK Greenhouse Gas Emissions and Feedbacks Programme. Journal of Geophysical Research G: Biogeosciences, O, , .	1.3	3