# Ying-Ping Wang

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 205 papers | 15,364 citations | 61 h-index | 121 g-index |
| 274 ext. papers | 18,547 ext. citations | 7.6 avg, IF | 6.38 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 205 | Hydrologic connectivity drives extremes and high variability in vegetation productivity across Australian arid and semi-arid ecosystems. *Remote Sensing of Environment*, **2022**, 272, 112937 | 13.2 | 1 |
| 204 | Nonlinear interactions of land carbon cycle feedbacks in Earth System Models. *Global Change Biology*, **2022**, 28, 296-306 | 11.4 | 0 |
| 203 | Mycorrhizal fungi alleviate acidification-induced phosphorus limitation: Evidence from a decade-long field experiment of simulated acid deposition in a tropical forest in south China.. *Global Change Biology*, **2022**, | 11.4 | 2 |
| 202 | Contribution of Litter Layer to Greenhouse Gas Fluxes between Atmosphere and Soil Varies with Forest Succession. *Forests*, **2022**, 13, 544 | 2.8 | 0 |
| 201 | Global soil organic carbon changes and economic revenues with biochar application. *GCB Bioenergy*, **2022**, 14, 364-377 | 5.6 | 0 |
| 200 | Global patterns and drivers of soil total phosphorus concentration. *Earth System Science Data*, **2021** , 13, 5831-5846 | 10.5 | 3 |
| 199 | Tropical tall forests are more sensitive and vulnerable to drought than short forests. *Global Change Biology*, **2021**, 28, 1583 | 11.4 | 3 |
| 198 | Land surface models significantly underestimate the impact of land-use changes on global evapotranspiration. *Environmental Research Letters*, **2021**, 16, 124047 | 6.2 | 0 |
| 197 | Microbial Activity and Root Carbon Inputs Are More Important than Soil Carbon Diffusion in Simulating Soil Carbon Profiles. *Journal of Geophysical Research G: Biogeosciences*, **2021**, 126, e2020JG006205 | 3.7 | 3 |
| 196 | Antagonistic and additive interactions dominate the responses of belowground carbon-cycling processes to nitrogen and phosphorus additions. *Soil Biology and Biochemistry*, **2021**, 156, 108216 | 7.5 | 2 |
| 195 | A small climate-amplifying effect of climate-carbon cycle feedback. *Nature Communications*, **2021**, 12, 2952 | 17.4 | 1 |
| 194 | Comparing machine learning-derived global estimates of soil respiration and its components with those from terrestrial ecosystem models. *Environmental Research Letters*, **2021**, 16, 054048 | 6.2 | 4 |
| 193 | Modelling of land nutrient cycles: recent progress and future development. *Faculty Reviews*, **2021**, 10, 53 | 1.2 | 0 |
| 192 | Land carbon-concentration and carbon-climate feedbacks are significantly reduced by nitrogen and phosphorus limitation. *Environmental Research Letters*, **2021**, 16, 074043 | 6.2 | 1 |
| 191 | New Forest Aboveground Biomass Maps of China Integrating Multiple Datasets. *Remote Sensing*, **2021**, 13, 2892 | 5 | 3 |
| 190 | Tighten the Bolts and Nuts on GPP Estimations from Sites to the Globe: An Assessment of Remote Sensing Based LUE Models and Supporting Data Fields. *Remote Sensing*, **2021**, 13, 168 | 5 | 2 |
| 189 | Recent leveling off of vegetation greenness and primary production reveals the increasing soil water limitations on the greening Earth. *Science Bulletin*, **2021**, 66, 1462-1471 | 10.6 | 6 |

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| 188 | The Dependence of Ecosystem Water Use Partitioning on Vegetation Productivity at the Inter-Annual Time Scale. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD033756 | 4.4 | 1 |
| 187 | Bedrock Weathering Controls on Terrestrial Carbon-Nitrogen-Climate Interactions. *Global Biogeochemical Cycles*, **2021**, 35, e2020GB006933 | 5.9 | 1 |
| 186 | Diagnosing the impacts of climate extremes on the interannual variations of carbon fluxes of a subtropical evergreen mixed forest. *Agricultural and Forest Meteorology*, **2021**, 307, 108507 | 5.8 | 1 |
| 185 | Assessing the response of soil carbon in Australia to changing inputs and climate using a consistent modelling framework. *Biogeosciences*, **2021**, 18, 5185-5202 | 4.6 | 1 |
| 184 | Aerodynamic resistance and Bowen ratio explain the biophysical effects of forest cover on understory air and soil temperatures at the global scale. *Agricultural and Forest Meteorology*, **2021**, 308-309, 108615 | 5.8 | 3 |
| 183 | Rainfall manipulation experiments as simulated by terrestrial biosphere models: Where do we stand?. *Global Change Biology*, **2020**, 26, 3336-3355 | 11.4 | 30 |
| 182 | Effects of 14-year continuous nitrogen addition on soil arylsulfatase and phosphodiesterase activities in a mature tropical forest. *Global Ecology and Conservation*, **2020**, 22, e00934 | 2.8 | 2 |
| 181 | Microbial dynamics and soil physicochemical properties explain large-scale variations in soil organic carbon. *Global Change Biology*, **2020**, 26, 2668 | 11.4 | 24 |
| 180 | Spatial variations in terrestrial net ecosystem productivity and its local indicators. *Biogeosciences*, **2020**, 17, 6237-6246 | 4.6 | 2 |
| 179 | The Australian Earth System Model: ACCESS-ESM1.5. *Journal of Southern Hemisphere Earth Systems Science*, **2020**, 70, 193 | 2.1 | 60 |
| 178 | Global Carbon Sequestration Is Highly Sensitive to Model-Based Formulations of Nitrogen Fixation. *Global Biogeochemical Cycles*, **2020**, 34, e2019GB006296 | 5.9 | 11 |
| 177 | Divergent responses of soil organic carbon accumulation to 14 years of nitrogen addition in two typical subtropical forests. *Science of the Total Environment*, **2020**, 707, 136104 | 10.2 | 7 |
| 176 | Growing-season temperature and precipitation are independent drivers of global variation in xylem hydraulic conductivity. *Global Change Biology*, **2020**, 26, 1833-1841 | 11.4 | 15 |
| 175 | The response of soil respiration to precipitation change is asymmetric and differs between grasslands and forests. *Global Change Biology*, **2020**, 26, 6015-6024 | 11.4 | 12 |
| 174 | Estimating global gross primary productivity using chlorophyll fluorescence and a data assimilation system with the BETHY-SCOPE model. *Biogeosciences*, **2019**, 16, 3069-3093 | 4.6 | 30 |
| 173 | Quantifying the biophysical effects of forests on local air temperature using a novel three-layered land surface energy balance model. *Environment International*, **2019**, 132, 105080 | 12.9 | 9 |
| 172 | Global Patterns in Net Primary Production Allocation Regulated by Environmental Conditions and Forest Stand Age: A Model-Data Comparison. *Journal of Geophysical Research G: Biogeosciences*, **2019**, 124, 2039-2059 | 3.7 | 15 |
| 171 | Nitrogen Deposition Maintains a Positive Effect on Terrestrial Carbon Sequestration in the 21st Century Despite Growing Phosphorus Limitation at Regional Scales. *Global Biogeochemical Cycles*, **2019**, 33, 810-824 | 5.9 | 14 |

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| 170 | Interactive effects of nitrogen and phosphorus additions on plant growth vary with ecosystem type. *Plant and Soil*, **2019**, 440, 523-537 | 4.2 | 25 |
| 169 | Plant Feedback Aggravates Soil Organic Carbon Loss Associated With Wind Erosion in Northwest China. *Journal of Geophysical Research G: Biogeosciences*, **2019**, 124, 825-839 | 3.7 | 7 |
| 168 | Evaluating the simulated mean soil carbon transit times by Earth system models using observations. *Biogeosciences*, **2019**, 16, 917-926 | 4.6 | 3 |
| 167 | Decadal biomass increment in early secondary succession woody ecosystems is increased by CO enrichment. *Nature Communications*, **2019**, 10, 454 | 17.4 | 37 |
| 166 | A meta-analysis of 1,119 manipulative experiments on terrestrial carbon-cycling responses to global change. *Nature Ecology and Evolution*, **2019**, 3, 1309-1320 | 12.3 | 150 |
| 165 | Increased atmospheric vapor pressure deficit reduces global vegetation growth. *Science Advances*, **2019**, 5, eaax1396 | 14.3 | 270 |
| 164 | Greenhouse Gas Concentration and Volcanic Eruptions Controlled the Variability of Terrestrial Carbon Uptake Over the Last Millennium. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 1715-1734 | 7.1 | 2 |
| 163 | Amazon forest response to CO2 fertilization dependent on plant phosphorus acquisition. *Nature Geoscience*, **2019**, 12, 736-741 | 18.3 | 92 |
| 162 | Soil organic carbon and nutrient losses resulted from spring dust emissions in Northern China. *Atmospheric Environment*, **2019**, 213, 585-596 | 5.3 | 15 |
| 161 | Soil Organic Carbon Stabilization in the Three Subtropical Forests: Importance of Clay and Metal Oxides. *Journal of Geophysical Research G: Biogeosciences*, **2019**, 124, 2976-2990 | 3.7 | 10 |
| 160 | Joint structural and physiological control on the interannual variation in productivity in a temperate grassland: A data-model comparison. *Global Change Biology*, **2018**, 24, 2965-2979 | 11.4 | 31 |
| 159 | Dominant regions and drivers of the variability of the global land carbon sink across timescales. *Global Change Biology*, **2018**, 24, 3954-3968 | 11.4 | 16 |
| 158 | Evaluating Global Land Surface Models in CMIP5: Analysis of Ecosystem Water- and Light-Use Efficiencies and Rainfall Partitioning. *Journal of Climate*, **2018**, 31, 2995-3008 | 4.4 | 12 |
| 157 | Parameter optimization for carbon and water fluxes in two global land surface models based on surrogate modelling. *International Journal of Climatology*, **2018**, 38, e1016-e1031 | 3.5 | 15 |
| 156 | Asymmetric responses of primary productivity to altered precipitation simulated by ecosystem models across three long-term grassland sites. *Biogeosciences*, **2018**, 15, 3421-3437 | 4.6 | 36 |
| 155 | Grasslands may be more reliable carbon sinks than forests in California. *Environmental Research Letters*, **2018**, 13, 074027 | 6.2 | 78 |
| 154 | Role contribution of biological nitrogen fixation to future terrestrial net land carbon accumulation under warming condition at centennial scale. *Journal of Cleaner Production*, **2018**, 202, 1158-1166 | 10.3 | 6 |
| 153 | More replenishment than priming loss of soil organic carbon with additional carbon input. *Nature Communications*, **2018**, 9, 3175 | 17.4 | 30 |

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| 152 | Correcting the Response of Maximum Leaf Photosynthetic Rate to Tempera-tures in Crop Models. *Acta Agronomica Sinica(China)*, **2018**, 44, 750 | 1.4 | 2 |
| 151 | Carbon cycle confidence and uncertainty: Exploring variation among soil biogeochemical models. *Global Change Biology*, **2018**, 24, 1563-1579 | 11.4 | 79 |
| 150 | Enhanced peak growth of global vegetation and its key mechanisms. *Nature Ecology and Evolution*, **2018**, 2, 1897-1905 | 12.3 | 97 |
| 149 | Leaf area index identified as a major source of variability in modeled CO<sub>2</sub> fertilization. *Biogeosciences*, **2018**, 15, 6909-6925 | 4.6 | 11 |
| 148 | Ecosystem carbon transit versus turnover times in response to climate warming and rising atmospheric CO<sub>2</sub> concentration. *Biogeosciences*, **2018**, 15, 6559-6572 | 4.6 | 12 |
| 147 | GOLUM-CNP v1.0: a data-driven modeling of carbon, nitrogen and phosphorus cycles in major terrestrial biomes. *Geoscientific Model Development*, **2018**, 11, 3903-3928 | 6.3 | 21 |
| 146 | Non-uniform seasonal warming regulates vegetation greening and atmospheric CO 2 amplification over northern lands. *Environmental Research Letters*, **2018**, 13, 124008 | 6.2 | 8 |
| 145 | Using research networks to create the comprehensive datasets needed to assess nutrient availability as a key determinant of terrestrial carbon cycling. *Environmental Research Letters*, **2018**, 13, 125006 | 6.2 | 21 |
| 144 | Soil organic matter is important for acid buffering and reducing aluminum leaching from acidic forest soils. *Chemical Geology*, **2018**, 501, 86-94 | 4.2 | 37 |
| 143 | Post-planting performance, yield, and ginsenoside content of Panax ginseng in relation to initial seedling size. *Industrial Crops and Products*, **2018**, 125, 24-32 | 5.9 | 3 |
| 142 | Challenging terrestrial biosphere models with data from the long-term multifactor Prairie Heating and CO Enrichment experiment. *Global Change Biology*, **2017**, 23, 3623-3645 | 11.4 | 31 |
| 141 | Compensatory water effects link yearly global land CO sink changes to temperature. *Nature*, **2017**, 541, 516-520 | 50.4 | 341 |
| 140 | Adaptive Carbon Allocation by Plants Enhances the Terrestrial Carbon Sink. *Scientific Reports*, **2017**, 7, 3341 | 4.9 | 34 |
| 139 | Climate mitigation from vegetation biophysical feedbacks during the past three decades. *Nature Climate Change*, **2017**, 7, 432-436 | 21.4 | 181 |
| 138 | Improving the ability of the photochemical reflectance index to track canopy light use efficiency through differentiating sunlit and shaded leaves. *Remote Sensing of Environment*, **2017**, 194, 1-15 | 13.2 | 31 |
| 137 | Transient dynamics of terrestrial carbon storage: mathematical foundation and its applications. *Biogeosciences*, **2017**, 14, 145-161 | 4.6 | 61 |
| 136 | Challenges and opportunities in land surface modelling of savanna ecosystems. *Biogeosciences*, **2017**, 14, 4711-4732 | 4.6 | 32 |
| 135 | The carbon cycle in the Australian Community Climate and Earth System Simulator (ACCESS-ESM1) Part 1: Model description and pre-industrial simulation. *Geoscientific Model Development*, **2017**, 10, 2567-2590 | 6.3 | 48 |

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| 134 | Responses of LAI to rainfall explain contrasting sensitivities to carbon uptake between forest and non-forest ecosystems in Australia. *Scientific Reports*, **2017**, 7, 11720 | 4.9 | 9 |
| 133 | Recent increases in terrestrial carbon uptake at little cost to the water cycle. *Nature Communications*, **2017**, 8, 110 | 17.4 | 103 |
| 132 | Incorporation of plant traits in a land surface model helps explain the global biogeographical distribution of major forest functional types. *Global Ecology and Biogeography*, **2017**, 26, 304-317 | 6.1 | 21 |
| 131 | Quantifying the impacts of vegetation changes on catchment storage-discharge dynamics using paired-catchment data. *Water Resources Research*, **2017**, 53, 5963-5979 | 5.4 | 24 |
| 130 | Quantification and attribution of errors in the simulated annual gross primary production and latent heat fluxes by two global land surface models. *Journal of Advances in Modeling Earth Systems* , **2016**, 8, 1270-1288 | 7.1 | 14 |
| 129 | Linear and nonlinear effects of dominant drivers on the trends in global and regional land carbon uptake: 1959 to 2013. *Geophysical Research Letters*, **2016**, 43, 1607-1614 | 4.9 | 13 |
| 128 | Impact of the representation of stomatal conductance on model projections of heatwave intensity. *Scientific Reports*, **2016**, 6, 23418 | 4.9 | 53 |
| 127 | Using models to guide field experiments: a priori predictions for the CO2 response of a nutrient- and water-limited native Eucalypt woodland. *Global Change Biology*, **2016**, 22, 2834-51 | 11.4 | 60 |
| 126 | Transit times and mean ages for nonautonomous and autonomous compartmental systems. *Journal of Mathematical Biology*, **2016**, 73, 1379-1398 | 2 | 26 |
| 125 | Responses of soil buffering capacity to acid treatment in three typical subtropical forests. *Science of the Total Environment*, **2016**, 563-564, 1068-77 | 10.2 | 22 |
| 124 | Toward more realistic projections of soil carbon dynamics by Earth system models. *Global Biogeochemical Cycles*, **2016**, 30, 40-56 | 5.9 | 251 |
| 123 | The impact of changing the land surface scheme in ACCESS(v1.0/1.1) on the surface climatology. *Geoscientific Model Development*, **2016**, 9, 2771-2791 | 6.3 | 4 |
| 122 | Responses of two nonlinear microbial models to warming and increased carbon input. *Biogeosciences*, **2016**, 13, 887-902 | 4.6 | 35 |
| 121 | A model inter-comparison study to examine limiting factors in modelling Australian tropical savannas. *Biogeosciences*, **2016**, 13, 3245-3265 | 4.6 | 25 |
| 120 | Divergent predictions of carbon storage between two global land models: attribution of the causes through traceability analysis. *Earth System Dynamics*, **2016**, 7, 649-658 | 4.8 | 28 |
| 119 | Modelling evapotranspiration during precipitation deficits: identifying critical processes in a land surface model. *Hydrology and Earth System Sciences*, **2016**, 20, 2403-2419 | 5.5 | 23 |
| 118 | Global patterns and climate drivers of water-use efficiency in terrestrial ecosystems deduced from satellite-based datasets and carbon cycle models. *Global Ecology and Biogeography*, **2016**, 25, 311-323 | 6.1 | 63 |
| 117 | Seasonal responses of terrestrial ecosystem water-use efficiency to climate change. *Global Change Biology*, **2016**, 22, 2165-77 | 11.4 | 57 |

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| 116 | Multi-decadal trends in global terrestrial evapotranspiration and its components. *Scientific Reports*, **2016**, 6, 19124 | 4.9 | 253 |
| 115 | Global patterns and substrate-based mechanisms of the terrestrial nitrogen cycle. *Ecology Letters*, **2016**, 19, 697-709 | 10 | 128 |
| 114 | Greening of the Earth and its drivers. *Nature Climate Change*, **2016**, 6, 791-795 | 21.4 | 1036 |
| 113 | Change in terrestrial ecosystem water-use efficiency over the last three decades. *Global Change Biology*, **2015**, 21, 2366-78 | 11.4 | 144 |
| 112 | Global patterns of plant root colonization intensity by mycorrhizal fungi explained by climate and soil chemistry. *Global Ecology and Biogeography*, **2015**, 24, 371-382 | 6.1 | 126 |
| 111 | Down-regulation of tissue N:P ratios in terrestrial plants by elevated CO2. *Ecology*, **2015**, 96, 3354-62 | 4.6 | 46 |
| 110 | Detection and attribution of vegetation greening trend in China over the last 30 years. *Global Change Biology*, **2015**, 21, 1601-9 | 11.4 | 373 |
| 109 | Predicting long-term carbon sequestration in response to CO2 enrichment: How and why do current ecosystem models differ?. *Global Biogeochemical Cycles*, **2015**, 29, 476-495 | 5.9 | 77 |
| 108 | Explicitly representing soil microbial processes in Earth system models. *Global Biogeochemical Cycles*, **2015**, 29, 1782-1800 | 5.9 | 197 |
| 107 | Reliable, robust and realistic: the three R's of next-generation land-surface modelling. *Atmospheric Chemistry and Physics*, **2015**, 15, 5987-6005 | 6.8 | 118 |
| 106 | Do land surface models need to include differential plant species responses to drought? Examining model predictions across a mesic-xeric gradient in Europe. *Biogeosciences*, **2015**, 12, 7503-7518 | 4.6 | 52 |
| 105 | Implementation of an optimal stomatal conductance scheme in the Australian Community Climate Earth Systems Simulator (ACCESS1.3b). *Geoscientific Model Development*, **2015**, 8, 3877-3889 | 6.3 | 40 |
| 104 | Using ecosystem experiments to improve vegetation models. *Nature Climate Change*, **2015**, 5, 528-534 | 21.4 | 191 |
| 103 | Carbon cycle. The dominant role of semi-arid ecosystems in the trend and variability of the land CO sink. *Science*, **2015**, 348, 895-9 | 33.3 | 684 |
| 102 | A test of an optimal stomatal conductance scheme within the CABLE land surface model. *Geoscientific Model Development*, **2015**, 8, 431-452 | 6.3 | 108 |
| 101 | Nitrogen and phosphorous limitation reduces the effects of land use change on land carbon uptake or emission. *Environmental Research Letters*, **2015**, 10, 014001 | 6.2 | 18 |
| 100 | Global carbon budget 2014. *Earth System Science Data*, **2015**, 7, 47-85 | 10.5 | 367 |
| 99 | Impacts of elevated CO2, climate change and their interactions on water budgets in four different catchments in Australia. *Journal of Hydrology*, **2014**, 519, 1350-1361 | 6 | 27 |

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| 98 | Comprehensive ecosystem model-data synthesis using multiple data sets at two temperate forest free-air CO2 enrichment experiments: Model performance at ambient CO2 concentration. *Journal of Geophysical Research G: Biogeosciences*, **2014**, 119, 937-964 | 3.7 | 83 |
| 97 | Oscillatory behavior of two nonlinear microbial models of soil carbon decomposition. *Biogeosciences*, **2014**, 11, 1817-1831 | 4.6 | 44 |
| 96 | Biogeographic variation in evergreen conifer needle longevity and impacts on boreal forest carbon cycle projections. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 13703-8 | 11.5 | 85 |
| 95 | Quantifying the effects of elevated CO2 on water budgets by combining FACE data with an ecohydrological model. *Ecohydrology*, **2014**, 7, 1574-1588 | 2.5 | 9 |
| 94 | A test of an optimal stomatal conductance scheme within the CABLE Land Surface Model **2014**, | | 1 |
| 93 | Nitrogen and phosphorous limitations significantly reduce future allowable CO2 emissions. *Geophysical Research Letters*, **2014**, 41, 632-637 | 4.9 | 56 |
| 92 | Where does the carbon go? A model-data intercomparison of vegetation carbon allocation and turnover processes at two temperate forest free-air CO2 enrichment sites. *New Phytologist*, **2014**, 203, 883-99 | 9.8 | 194 |
| 91 | Evaluation of 11 terrestrial carbon-nitrogen cycle models against observations from two temperate Free-Air CO2 Enrichment studies. *New Phytologist*, **2014**, 202, 803-822 | 9.8 | 300 |
| 90 | Modeling permafrost thaw and ecosystem carbon cycle under annual and seasonal warming at an Arctic tundra site in Alaska. *Journal of Geophysical Research G: Biogeosciences*, **2014**, 119, 1129-1146 | 3.7 | 17 |
| 89 | A novel silvicultural model for increasing biopolymer production from Eucommia ulmoides Oliver trees. *Industrial Crops and Products*, **2013**, 42, 216-222 | 5.9 | 23 |
| 88 | Increasing phosphorus limitation along three successional forests in southern China. *Plant and Soil*, **2013**, 364, 181-191 | 4.2 | 95 |
| 87 | The response of ginseng grown on farmland to foliar-applied iron, zinc, manganese and copper. *Industrial Crops and Products*, **2013**, 45, 388-394 | 5.9 | 17 |
| 86 | An efficient method for global parameter sensitivity analysis and its applications to the Australian community land surface model (CABLE). *Agricultural and Forest Meteorology*, **2013**, 182-183, 292-303 | 5.8 | 36 |
| 85 | Forest water use and water use efficiency at elevated CO2 : a model-data intercomparison at two contrasting temperate forest FACE sites. *Global Change Biology*, **2013**, 19, 1759-79 | 11.4 | 271 |
| 84 | Evaluating Surface Water Cycle Simulated by the Australian Community Land Surface Model (CABLE) across Different Spatial and Temporal Domains. *Journal of Hydrometeorology*, **2013**, 14, 1119-1138 | 3.7 | 29 |
| 83 | The impact of nitrogen and phosphorous limitation on the estimated terrestrial carbon balance and warming of land use change over the last 156 yr. *Earth System Dynamics*, **2013**, 4, 333-345 | 4.8 | 30 |
| 82 | Traceable components of terrestrial carbon storage capacity in biogeochemical models. *Global Change Biology*, **2013**, 19, 2104-16 | 11.4 | 113 |
| 81 | Examining soil carbon uncertainty in a global model: response of microbial decomposition to temperature, moisture and nutrient limitation. *Biogeosciences*, **2013**, 10, 7095-7108 | 4.6 | 54 |

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| 80 | Sensitivity of net ecosystem exchange and heterotrophic respiration to parameterization uncertainty. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 1640-1651 | 4.4 | 21 |
| 79 | The land surface model component of ACCESS: description and impact on the simulated surface climatology. *Australian Meteorological Magazine*, **2013**, 63, 65-82 | | 94 |
| 78 | Isotopic identification of nitrogen hotspots across natural terrestrial ecosystems. *Biogeosciences*, **2012**, 9, 3287-3304 | 4.6 | 58 |
| 77 | Improving the responses of the Australian community land surface model (CABLE) to seasonal drought. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a | | 67 |
| 76 | Benchmarking global land surface models against the observed mean annual runoff from 150 large basins. *Journal of Hydrology*, **2012**, 470-471, 269-279 | 6 | 50 |
| 75 | A framework for benchmarking land models. *Biogeosciences*, **2012**, 9, 3857-3874 | 4.6 | 238 |
| 74 | A semi-analytical solution to accelerate spin-up of a coupled carbon and nitrogen land model to steady state. *Geoscientific Model Development*, **2012**, 5, 1259-1271 | 6.3 | 81 |
| 73 | Correlations among leaf traits provide a significant constraint on the estimate of global gross primary production. *Geophysical Research Letters*, **2012**, 39, n/a-n/a | 4.9 | 47 |
| 72 | Diagnosing errors in a land surface model (CABLE) in the time and frequency domains. *Journal of Geophysical Research*, **2011**, 116, | | 141 |
| 71 | Limitations of nitrogen and phosphorous on the terrestrial carbon uptake in the 20th century. *Geophysical Research Letters*, **2011**, 38, n/a-n/a | 4.9 | 63 |
| 70 | Carbon uptake by karsts in the Houzhai Basin, southwest China. *Journal of Geophysical Research*, **2011**, 116, | | 22 |
| 69 | Importance of background climate in determining impact of land-cover change on regional climate. *Nature Climate Change*, **2011**, 1, 472-475 | 21.4 | 133 |
| 68 | Harmonization of land-use scenarios for the period 1500–2100: 600 years of global gridded annual land-use transitions, wood harvest, and resulting secondary lands. *Climatic Change*, **2011**, 109, 117-161 | 4.5 | 883 |
| 67 | Different patterns of ecosystem carbon accumulation between a young and an old-growth subtropical forest in Southern China. *Plant Ecology*, **2011**, 212, 1385-1395 | 1.7 | 35 |
| 66 | Global and regional coupled climate sensitivity to the parameterization of rainfall interception. *Climate Dynamics*, **2011**, 37, 171-186 | 4.2 | 4 |
| 65 | Coupling a terrestrial biogeochemical model to the common land model. *Advances in Atmospheric Sciences*, **2011**, 28, 1129-1142 | 2.9 | 3 |
| 64 | The CSIRO Mk3L climate system model v1.0 coupled to the CABLE land surface scheme v1.4b: evaluation of the control climatology. *Geoscientific Model Development*, **2011**, 4, 1115-1131 | 6.3 | 16 |
| 63 | Soil–atmosphere exchange of CH4, CO, N2O and NOx and the effects of land-use change in the semiarid Mallee system in Southeastern Australia. *Global Change Biology*, **2010**, 16, 2407 | 11.4 | 17 |

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| 62 | A global model of carbon, nitrogen and phosphorus cycles for the terrestrial biosphere. *Biogeosciences*, **2010**, 7, 2261-2282 | 4.6 | 442 |
| 61 | Can the stomatal response to higher atmospheric carbon dioxide explain the unusual temperatures during the 2002 Murray-Darling Basin drought?. *Journal of Geophysical Research*, **2010**, 115, | | 11 |
| 60 | Nitrous oxide emissions from a legume pasture and the influences of liming and urine addition. *Agriculture, Ecosystems and Environment*, **2010**, 136, 262-272 | 5.7 | 37 |
| 59 | Using indirect methods to constrain symbiotic nitrogen fixation rates: a case study from an Amazonian rain forest. *Biogeochemistry*, **2010**, 99, 1-13 | 3.8 | 37 |
| 58 | Land and ocean nutrient and carbon cycle interactions. *Current Opinion in Environmental Sustainability*, **2010**, 2, 258-263 | 7.2 | 18 |
| 57 | Improving land surface models with FLUXNET data. *Biogeosciences*, **2009**, 6, 1341-1359 | 4.6 | 260 |
| 56 | A review of applications of model–data fusion to studies of terrestrial carbon fluxes at different scales. *Agricultural and Forest Meteorology*, **2009**, 149, 1829-1842 | 5.8 | 123 |
| 55 | Nitrogen constraints on terrestrial carbon uptake: Implications for the global carbon-climate feedback. *Geophysical Research Letters*, **2009**, 36, | 4.9 | 131 |
| 54 | A unifying framework for dinitrogen fixation in the terrestrial biosphere. *Nature*, **2008**, 454, 327-30 | 50.4 | 535 |
| 53 | Soil-atmosphere trace gas exchange in semiarid and arid zones. *Journal of Environmental Quality*, **2008**, 37, 599-607 | 3.4 | 65 |
| 52 | A model of biogeochemical cycles of carbon, nitrogen, and phosphorus including symbiotic nitrogen fixation and phosphatase production. *Global Biogeochemical Cycles*, **2007**, 21, | 5.9 | 163 |
| 51 | OptIC project: An intercomparison of optimization techniques for parameter estimation in terrestrial biogeochemical models. *Journal of Geophysical Research*, **2007**, 112, | | 74 |
| 50 | Estimating parameters in a land-surface model by applying nonlinear inversion to eddy covariance flux measurements from eight FLUXNET sites. *Global Change Biology*, **2007**, 13, 652-670 | 11.4 | 136 |
| 49 | Systematic Bias in Land Surface Models. *Journal of Hydrometeorology*, **2007**, 8, 989-1001 | 3.7 | 60 |
| 48 | Diffusion of 15N-labelled N2O into soil columns: a promising method to examine the fate of N2O in subsoils. *Soil Biology and Biochemistry*, **2006**, 38, 1462-1468 | 7.5 | 49 |
| 47 | A comparative analysis of simulated and observed photosynthetic CO2 uptake in two coniferous forest canopies. *Tree Physiology*, **2006**, 26, 845-64 | 4.2 | 36 |
| 46 | Neural Error Regression Diagnosis (NERD): A Tool for Model Bias Identification and Prognostic Data Assimilation. *Journal of Hydrometeorology*, **2006**, 7, 160-177 | 3.7 | 29 |
| 45 | Estimates of soil respiration and net primary production of three forests at different succession stages in South China. *Global Change Biology*, **2006**, 12, 810-821 | 11.4 | 91 |

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|---|---|---|---|
| 44 | Using atmospheric CO2 data to assess a simplified carbon-climate simulation for the 20th century. *Tellus, Series B: Chemical and Physical Meteorology*, **2006**, 58, 427-437 | 3.3 | 25 |
| 43 | A Two-Big-Leaf Model for Canopy Temperature, Photosynthesis, and Stomatal Conductance. *Journal of Climate*, **2004**, 17, 2281-2299 | 4.4 | 332 |
| 42 | Scaling the estimate of maximum canopy conductance from patch to region and comparison of aircraft measurements. **2004**, 175-188 | | 2 |
| 41 | A comparison of three different canopy radiation models commonly used in plant modelling. *Functional Plant Biology*, **2003**, 30, 143-152 | 2.7 | 55 |
| 40 | . *Tellus, Series B: Chemical and Physical Meteorology*, **2003**, 55, 290-304 | 3.3 | 9 |
| 39 | . *Tellus, Series B: Chemical and Physical Meteorology*, **2003**, 55, 270-289 | 3.3 | 15 |
| 38 | Development of a spatially explicit inventory of methane emissions from Australia and its verification using atmospheric concentration data. *Atmospheric Environment*, **2002**, 36, 4965-4975 | 5.3 | 21 |
| 37 | Parameter estimation in surface exchange models using nonlinear inversion: how many parameters can we estimate and which measurements are most useful?. *Global Change Biology*, **2001**, 7, 495-510 | 11.4 | 153 |
| 36 | A refinement to the two-leaf model for calculating canopy photosynthesis. *Agricultural and Forest Meteorology*, **2000**, 101, 143-150 | 5.8 | 34 |
| 35 | A search for predictive understanding of plant responses to elevated [CO2]. *Global Change Biology*, **1999**, 5, 143-156 | 11.4 | 73 |
| 34 | Nitrogen allocation and carbon isotope fractionation in relation to intercepted radiation and position in a young Pinus radiata D. Don tree. *Plant, Cell and Environment*, **1998**, 21, 795-803 | 8.4 | 61 |
| 33 | Carbon balance of young birch trees grown in ambient and elevated atmospheric CO2 concentrations. *Global Change Biology*, **1998**, 4, 797-807 | 11.4 | 44 |
| 32 | A two-leaf model for canopy conductance, photosynthesis and partitioning of available energy I:: Model description and comparison with a multi-layered model. *Agricultural and Forest Meteorology*, **1998**, 91, 89-111 | 5.8 | 466 |
| 31 | A two-leaf model for canopy conductance, photosynthesis and partitioning of available energy. II. Comparison with measurements. *Agricultural and Forest Meteorology*, **1998**, 91, 113-125 | 5.8 | 71 |
| 30 | Comparisons of field measurements of carbon dioxide and nitrous oxide fluxes with model simulations for a legume pasture in southeast Australia. *Journal of Geophysical Research*, **1997**, 102, 28013-28024 | | 21 |
| 29 | A comparison of two algorithms for estimating carbon dioxide emissions after forest clearing. *Environmental Modelling and Software*, **1997**, 12, 187-195 | 5.2 | 3 |
| 28 | Simulation of optimal development for spring wheat at two locations in southern Australia under present and changed climate conditions. *Agricultural and Forest Meteorology*, **1996**, 79, 9-28 | 5.8 | 22 |
| 27 | Carbon balance in the tundra, boreal forest and humid tropical forest during climate change: scaling up from leaf physiology and soil carbon dynamics. *Plant, Cell and Environment*, **1995**, 18, 1226-1244 | 8.4 | 87 |

| | | | |
|---|---|---|---|
| 26 | A Model of Wheat Grain Growth and Its Applications to Different Temperature and Carbon Dioxide Levels. *Functional Plant Biology*, **1995**, 22, 843 | 2.7 | 8 |
| 25 | Climate and food supply. *Nature*, **1994**, 371, 25-25 | 50.4 | 4 |
| 24 | Influence of Shoot Structure on the Photosynthesis of Sitka Spruce (Picea sitchensis). *Functional Ecology*, **1993**, 7, 433 | 5.6 | 21 |
| 23 | Growth and water use of wheat under present and future levels of CO2. *J Agricultural Meteorology*, **1993**, 48, 807-810 | 1.1 | 5 |
| 22 | Mathematical models of the photosynthetic response of tree stands to rising CO2 concentrations and temperatures. *Plant, Cell and Environment*, **1993**, 16, 1-13 | 8.4 | 199 |
| 21 | Modifying Existing Forest Growth Models to Take Account of Effects of Elevated CO2. *Australian Journal of Botany*, **1992**, 40, 657 | 1.2 | 71 |
| 20 | Sensitivity of wheat growth to increased air temperature for different scenarios of ambient CO2 concentration and rainfall in Victoria, Australia - a simulation study. *Climate Research*, **1992**, 2, 131-149 | 1.6 | 40 |
| 19 | Potential CO2-Enhanced Carbon Storage by the Terrestrial Biosphere. *Australian Journal of Botany*, **1992**, 40, 641 | 1.2 | 60 |
| 18 | Par Absorption and Its Relation to Above-Ground Dry Matter Production of Sitka Spruce. *Journal of Applied Ecology*, **1991**, 28, 547 | 5.8 | 36 |
| 17 | Model simulations of spatial distributions and daily totals of photosynthesis in Eucalyptus grandis canopies. *Oecologia*, **1991**, 88, 494-503 | 2.9 | 41 |
| 16 | Influence of crown structural properties on PAR absorption, photosynthesis, and transpiration in Sitka spruce: application of a model (MAESTRO). *Tree Physiology*, **1990**, 7, 297-316 | 4.2 | 163 |
| 15 | Two-dimensional needle-area density distribution within the crowns of Pinus radiata. *Forest Ecology and Management*, **1990**, 32, 217-237 | 3.9 | 69 |
| 14 | Description and validation of an array model MAESTRO. *Agricultural and Forest Meteorology*, **1990**, 51, 257-280 | 5.8 | 356 |
| 13 | Mean leaf angles for the ellipsoidal inclination angle distribution. *Agricultural and Forest Meteorology*, **1988**, 43, 319-321 | 5.8 | 35 |
| 12 | Issues in Modelling Plant Ecosystem Responses to Elevated CO2: Interactions with Soil Nitrogen165-186 | | |
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| 2 | Tradeoff of CO2 and CH4 emissions from global peatlands under water-table drawdown. *Nature Climate Change*, | 21.4 | 13 |
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