# Atual Jain

## List of Publications by Citations



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|---|---|---|---|
| 189 papers | 16,035 citations | 57 h-index | 125 g-index |
| 232 ext. papers | 20,335 ext. citations | 9.7 avg, IF | 5.92 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 189 | Advanced technology paths to global climate stability: energy for a greenhouse planet. *Science*, **2002**, 298, 981-7 | 33.3 | 977 |
| 188 | Global Carbon Budget 2018. *Earth System Science Data*, **2018**, 10, 2141-2194 | 10.5 | 831 |
| 187 | Global Carbon Budget 2019. *Earth System Science Data*, **2019**, 11, 1783-1838 | 10.5 | 776 |
| 186 | Global Carbon Budget 2016. *Earth System Science Data*, **2016**, 8, 605-649 | 10.5 | 730 |
| 185 | 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 |
| 184 | Global Carbon Budget 2017. *Earth System Science Data*, **2018**, 10, 405-448 | 10.5 | 614 |
| 183 | Global Carbon Budget 2020. *Earth System Science Data*, **2020**, 12, 3269-3340 | 10.5 | 533 |
| 182 | Global Carbon Budget 2015. *Earth System Science Data*, **2015**, 7, 349-396 | 10.5 | 513 |
| 181 | Energy implications of future stabilization of atmospheric CO2 content. *Nature*, **1998**, 395, 881-884 | 50.4 | 462 |
| 180 | The global carbon budget 1959–2011. *Earth System Science Data*, **2013**, 5, 165-185 | 10.5 | 436 |
| 179 | Global change pressures on soils from land use and management. *Global Change Biology*, **2016**, 22, 1008-28 | 11.4 | 403 |
| 178 | Global carbon budget 2014. *Earth System Science Data*, **2015**, 7, 47-85 | 10.5 | 367 |
| 177 | Compensatory water effects link yearly global land CO sink changes to temperature. *Nature*, **2017**, 541, 516-520 | 50.4 | 341 |
| 176 | Global patterns of drought recovery. *Nature*, **2017**, 548, 202-205 | 50.4 | 334 |
| 175 | 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 |
| 174 | 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 |
| 173 | Increased atmospheric vapor pressure deficit reduces global vegetation growth. *Science Advances*, **2019**, 5, eaax1396 | 14.3 | 270 |

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| 172 | Global carbon budget 2013. *Earth System Science Data*, **2014**, 6, 235-263 | 10.5 | 264 |
| 171 | Carbon and Other Biogeochemical Cycles465-570 | | 260 |
| 170 | A model-data comparison of gross primary productivity: Results from the North American Carbon Program site synthesis. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a | | 239 |
| 169 | Climate sensitivity uncertainty and the need for energy without CO2 emission. *Science*, **2003**, 299, 2052-4 | 33.3 | 211 |
| 168 | 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 |
| 167 | Using ecosystem experiments to improve vegetation models. *Nature Climate Change*, **2015**, 5, 528-534 | 21.4 | 191 |
| 166 | North American Carbon Program (NACP) regional interim synthesis: Terrestrial biospheric model intercomparison. *Ecological Modelling*, **2012**, 232, 144-157 | 3 | 180 |
| 165 | Global patterns and controls of soil organic carbon dynamics as simulated by multiple terrestrial biosphere models: Current status and future directions. *Global Biogeochemical Cycles*, **2015**, 29, 775-792 | 5.9 | 159 |
| 164 | Concerns about climate change and the role of fossil fuel use. *Fuel Processing Technology*, **2001**, 71, 99-119 | 7.2 | 147 |
| 163 | Scaling carbon fluxes from eddy covariance sites to globe: synthesis and evaluation of the FLUXCOM approach. *Biogeosciences*, **2020**, 17, 1343-1365 | 4.6 | 134 |
| 162 | Widespread seasonal compensation effects of spring warming on northern plant productivity. *Nature*, **2018**, 562, 110-114 | 50.4 | 134 |
| 161 | Development of Decadal (1985 1995 2005) Land Use and Land Cover Database for India. *Remote Sensing*, **2015**, 7, 2401-2430 | 5 | 133 |
| 160 | Hotspots of uncertainty in land-use and land-cover change projections: a global-scale model comparison. *Global Change Biology*, **2016**, 22, 3967-3983 | 11.4 | 128 |
| 159 | The distribution of soil phosphorus for global biogeochemical modeling. *Biogeosciences*, **2013**, 10, 2525-2537 | 4.6 | 127 |
| 158 | The global carbon budget 1959 2011 **2012**, | | 122 |
| 157 | Nitrogen attenuation of terrestrial carbon cycle response to global environmental factors. *Global Biogeochemical Cycles*, **2009**, 23, n/a-n/a | 5.9 | 113 |
| 156 | Impact of large-scale climate extremes on biospheric carbon fluxes: An intercomparison based on MsTMIP data. *Global Biogeochemical Cycles*, **2014**, 28, 585-600 | 5.9 | 112 |
| 155 | Uncertainty in the response of terrestrial carbon sink to environmental drivers undermines carbon-climate feedback predictions. *Scientific Reports*, **2017**, 7, 4765 | 4.9 | 108 |

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|---|---|---|---|
| 154 | Recent global decline of CO fertilization effects on vegetation photosynthesis. *Science*, **2020**, 370, 1295-1300 | 3339 | 107 |
| 153 | An integrated biogeochemical and economic analysis of bioenergy crops in the Midwestern United States. *GCB Bioenergy*, **2010**, 2, 217-234 | 5.6 | 107 |
| 152 | CO2 emissions from land-use change affected more by nitrogen cycle, than by the choice of land-cover data. *Global Change Biology*, **2013**, 19, 2893-906 | 11.4 | 102 |
| 151 | Modeling the effects of two different land cover change data sets on the carbon stocks of plants and soils in concert with CO2 and climate change. *Global Biogeochemical Cycles*, **2005**, 19, n/a-n/a | 5.9 | 100 |
| 150 | Radiative forcings and global warming potentials of 39 greenhouse gases. *Journal of Geophysical Research*, **2000**, 105, 20773-20790 | | 100 |
| 149 | Land-use emissions play a critical role in land-based mitigation for Paris climate targets. *Nature Communications*, **2018**, 9, 2938 | 17.4 | 99 |
| 148 | Disentangling climatic and anthropogenic controls on global terrestrial evapotranspiration trends. *Environmental Research Letters*, **2015**, 10, 094008 | 6.2 | 93 |
| 147 | Three distinct global estimates of historical land-cover change and land-use conversions for over 200 years. *Frontiers of Earth Science*, **2012**, 6, 122-139 | 1.7 | 90 |
| 146 | A welfare-based index for assessing environmental effects of greenhouse-gas emissions. *Nature*, **1996**, 381, 301-303 | 50.4 | 87 |
| 145 | Direct and seasonal legacy effects of the 2018 heat wave and drought on European ecosystem productivity. *Science Advances*, **2020**, 6, eaba2724 | 14.3 | 85 |
| 144 | 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 |
| 143 | Mechanisms of water supply and vegetation demand govern the seasonality and magnitude of evapotranspiration in Amazonia and Cerrado. *Agricultural and Forest Meteorology*, **2014**, 191, 33-50 | 5.8 | 81 |
| 142 | Substitution of Natural Gas for Coal: Climatic Effects of Utility Sector Emissions. *Climatic Change*, **2002**, 54, 107-139 | 4.5 | 81 |
| 141 | Integration of nitrogen cycle dynamics into the Integrated Science Assessment Model for the study of terrestrial ecosystem responses to global change. *Global Biogeochemical Cycles*, **2009**, 23, n/a-n/a | 5.9 | 80 |
| 140 | Assessing uncertainties in land cover projections. *Global Change Biology*, **2017**, 23, 767-781 | 11.4 | 76 |
| 139 | Global carbon budget 2013 **2013**, | | 75 |
| 138 | Spatial modeling of agricultural land use change at global scale. *Ecological Modelling*, **2014**, 291, 152-174 | 3 | 71 |
| 137 | Carbon Management Response curves: estimates of temporal soil carbon dynamics. *Environmental Management*, **2004**, 33, 507-18 | 3.1 | 70 |

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| 136 | Carbon cycle uncertainty in the Alaskan Arctic. *Biogeosciences*, **2014**, 11, 4271-4288 | 4.6 | 69 |
| 135 | Lifetimes and global warming potentials for dimethyl ether and for fluorinated ethers: CH3OCF3 (E143a), CHF2OCHF2 (E134), CHF2OCF3 (E125). *Journal of Geophysical Research*, **1998**, 103, 28181-28186 | | 62 |
| 134 | Effects of carbon dioxide and climate change on ocean acidification and carbonate mineral saturation. *Geophysical Research Letters*, **2007**, 34, | 4.9 | 60 |
| 133 | Global Carbon Budget 2017 | | 60 |
| 132 | Global change: state of the science. *Environmental Pollution*, **1999**, 100, 57-86 | 9.3 | 57 |
| 131 | Reconciling global-model estimates and country reporting of anthropogenic forest CO2 sinks. *Nature Climate Change*, **2018**, 8, 914-920 | 21.4 | 57 |
| 130 | Consistent sets of atmospheric lifetimes and radiative forcings on climate for CFC replacements: HCFCs and HFCs. *Journal of Geophysical Research*, **2000**, 105, 6903-6914 | | 54 |
| 129 | Climate-driven uncertainties in modeling terrestrial gross primary production: a site level to global-scale analysis. *Global Change Biology*, **2014**, 20, 1394-411 | 11.4 | 53 |
| 128 | Evaluation of global terrestrial evapotranspiration using state-of-the-art approaches in remote sensing, machine learning and land surface modeling. *Hydrology and Earth System Sciences*, **2020**, 24, 1485-1509 | 5.5 | 52 |
| 127 | Distribution of radiocarbon as a test of global carbon cycle models. *Global Biogeochemical Cycles*, **1995**, 9, 153-166 | 5.9 | 50 |
| 126 | Overview of the Large-Scale Biosphere–Atmosphere Experiment in Amazonia Data Model Intercomparison Project (LBA-DMIP). *Agricultural and Forest Meteorology*, **2013**, 182-183, 111-127 | 5.8 | 49 |
| 125 | CLIMATE CHANGE POLICY:Costs of Multigreenhouse Gas Reduction Targets for the USA. *Science*, **1999**, 286, 905-906 | 33.3 | 47 |
| 124 | Global Carbon Budget 2021. *Earth System Science Data*, **2022**, 14, 1917-2005 | 10.5 | 47 |
| 123 | Estimates of global biomass burning emissions for reactive greenhouse gases (CO, NMHCs, and NOx) and CO2. *Journal of Geophysical Research*, **2006**, 111, | | 46 |
| 122 | Accounting for the missing carbon-sink with the CO2-fertilization effect. *Climatic Change*, **1996**, 33, 31-62 | 4.5 | 44 |
| 121 | Precipitation and carbon-water coupling jointly control the interannual variability of global land gross primary production. *Scientific Reports*, **2016**, 6, 39748 | 4.9 | 44 |
| 120 | Toward Optimal Integration of terrestrial biosphere models. *Geophysical Research Letters*, **2015**, 42, 4418-4428 | 4.9 | 42 |
| 119 | Agriculture, Forestry and Other Land Use (AFOLU)811-922 | | 41 |

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| 118 | Impact of the 2015/2016 El Niño on the terrestrial carbon cycle constrained by bottom-up and top-down approaches. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2018**, 373, | 5.8 | 41 |
| 117 | Accelerating rates of Arctic carbon cycling revealed by long-term atmospheric CO measurements. *Science Advances*, **2018**, 4, eaao1167 | 14.3 | 40 |
| 116 | Carbon dynamics in the Amazonian Basin: Integration of eddy covariance and ecophysiological data with a land surface model. *Agricultural and Forest Meteorology*, **2013**, 182-183, 156-167 | 5.8 | 40 |
| 115 | Global greenhouse gas emissions from animal-based foods are twice those of plant-based foods. *Nature Food*, **2021**, 2, 724-732 | 14.4 | 39 |
| 114 | Response of Water Use Efficiency to Global Environmental Change Based on Output From Terrestrial Biosphere Models. *Global Biogeochemical Cycles*, **2017**, 31, 1639-1655 | 5.9 | 38 |
| 113 | Decadal biomass increment in early secondary succession woody ecosystems is increased by CO enrichment. *Nature Communications*, **2019**, 10, 454 | 17.4 | 37 |
| 112 | Contributions of secondary forest and nitrogen dynamics to terrestrial carbon uptake. *Biogeosciences*, **2010**, 7, 3041-3050 | 4.6 | 37 |
| 111 | Projecting future climate change: Implications of carbon cycle model intercomparisons. *Global Biogeochemical Cycles*, **2003**, 17, n/a-n/a | 5.9 | 36 |
| 110 | Implementation of dynamic crop growth processes into a land surface model: evaluation of energy, water and carbon fluxes under corn and soybean rotation. *Biogeosciences*, **2013**, 10, 8039-8066 | 4.6 | 35 |
| 109 | Global estimation of CO emissions using three sets of satellite data for burned area. *Atmospheric Environment*, **2007**, 41, 6931-6940 | 5.3 | 35 |
| 108 | Field-experiment constraints on the enhancement of the terrestrial carbon sink by CO2 fertilization. *Nature Geoscience*, **2019**, 12, 809-814 | 18.3 | 33 |
| 107 | Evaluation of ozone depletion potentials for chlorobromomethane (CH2ClBr) and 1-bromo-propane (CH2BrCH2CH3). *Atmospheric Environment*, **1998**, 32, 107-113 | 5.3 | 33 |
| 106 | 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 |
| 105 | Sensitivity of direct global warming potentials to key uncertainties. *Climatic Change*, **1995**, 29, 265-297 | 4.5 | 31 |
| 104 | Climate impacts on global agriculture emerge earlier in new generation of climate and crop models. *Nature Food*, | 14.4 | 30 |
| 103 | Global land carbon sink response to temperature and precipitation varies with ENSO phase. *Environmental Research Letters*, **2017**, 12, 064007 | 6.2 | 29 |
| 102 | Dynamics and determinants of land change in India: integrating satellite data with village socioeconomics. *Regional Environmental Change*, **2017**, 17, 753-766 | 4.3 | 28 |
| 101 | Comparison of effects of cold-region soil/snow processes and the uncertainties from model forcing data on permafrost physical characteristics. *Journal of Advances in Modeling Earth Systems*, **2016**, 8, 453-466 | 7.1 | 27 |

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| 100 | Inter-annual variability of carbon and water fluxes in Amazonian forest, Cerrado and pasture sites, as simulated by terrestrial biosphere models. *Agricultural and Forest Meteorology*, **2013**, 182-183, 145-155 | 5.8 | 27 |
| 99 | Increased influence of nitrogen limitation on CO2 emissions from future land use and land use change. *Global Biogeochemical Cycles*, **2015**, 29, 1524-1548 | 5.9 | 26 |
| 98 | Global Carbon Budget 2021 | | 26 |
| 97 | 2016 International Land Model Benchmarking (ILAMB) Workshop Report | | 26 |
| 96 | The terrestrial carbon budget of South and Southeast Asia. *Environmental Research Letters*, **2016**, 11, 105006 | 6.2 | 26 |
| 95 | Climate-driven uncertainties in modeling terrestrial energy and water fluxes: a site-level to global-scale analysis. *Global Change Biology*, **2014**, 20, 1885-900 | 11.4 | 25 |
| 94 | Can we reconcile differences in estimates of carbon fluxes from land-use change and forestry for the 1990s?. *Atmospheric Chemistry and Physics*, **2008**, 8, 3291-3310 | 6.8 | 24 |
| 93 | Modeling of global biogenic emissions for key indirect greenhouse gases and their response to atmospheric CO2 increases and changes in land cover and climate. *Journal of Geophysical Research*, **2005**, 110, | | 24 |
| 92 | Decadal trends in the seasonal-cycle amplitude of terrestrial CO2 exchange resulting from the ensemble of terrestrial biosphere models. *Tellus, Series B: Chemical and Physical Meteorology*, **2016**, 68, 28968 | 3.3 | 24 |
| 91 | Increased light-use efficiency in northern terrestrial ecosystems indicated by CO2 and greening observations. *Geophysical Research Letters*, **2016**, 43, 11,339 | 4.9 | 23 |
| 90 | . *Tellus, Series B: Chemical and Physical Meteorology*, **1996**, 48, 583-600 | 3.3 | 23 |
| 89 | Sources of Uncertainty in Regional and Global Terrestrial CO2 Exchange Estimates. *Global Biogeochemical Cycles*, **2020**, 34, e2019GB006393 | 5.9 | 23 |
| 88 | Impacts of extreme summers on European ecosystems: a comparative analysis of 2003, 2010 and 2018. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2020**, 375, 20190507 | 5.8 | 23 |
| 87 | Uncertainty analysis of terrestrial net primary productivity and net biome productivity in China during 19012005. *Journal of Geophysical Research G: Biogeosciences*, **2016**, 121, 1372-1393 | 3.7 | 23 |
| 86 | Estimates of Biomass Yield for Perennial Bioenergy Grasses in the USA. *Bioenergy Research*, **2015**, 8, 688-715 | 3.1 | 22 |
| 85 | Tracking uncertainties in the causal chain from human activities to climate. *Geophysical Research Letters*, **2009**, 36, | 4.9 | 22 |
| 84 | Vegetation Functional Properties Determine Uncertainty of Simulated Ecosystem Productivity: A Traceability Analysis in the East Asian Monsoon Region. *Global Biogeochemical Cycles*, **2019**, 33, 668-689 | 5.9 | 21 |
| 83 | Quantifying the biophysical and socioeconomic drivers of changes in forest and agricultural land in South and Southeast Asia. *Global Change Biology*, **2019**, 25, 2137-2151 | 11.4 | 21 |

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| 82 | The carbon cycle in Mexico: past, present and future of C stocks and fluxes. *Biogeosciences*, **2016**, 13, 223-238 | 4.6 | 21 |
| 81 | Role of CO<sub>2</sub>, climate and land use in regulating the seasonal amplitude increase of carbon fluxes in terrestrial ecosystems: a multimodel analysis. *Biogeosciences*, **2016**, 13, 5121-5137 | 4.6 | 19 |
| 80 | Managing Multiple Mandates: A System of Systems Model to Analyze Strategies for Producing Cellulosic Ethanol and Reducing Riverine Nitrate Loads in the Upper Mississippi River Basin. *Environmental Science & Technology*, **2015**, 49, 11932-40 | 10.3 | 19 |
| 79 | Model-based estimation of the global carbon budget and its uncertainty from carbon dioxide and carbon isotope records. *Journal of Geophysical Research*, **1999**, 104, 31127-31143 | | 19 |
| 78 | State of the science in reconciling top-down and bottom-up approaches for terrestrial CO budget. *Global Change Biology*, **2020**, 26, 1068-1084 | 11.4 | 19 |
| 77 | Dynamics and drivers of land use and land cover changes in Bangladesh. *Regional Environmental Change*, **2020**, 20, 1 | 4.3 | 18 |
| 76 | Large-Scale Droughts Responsible for Dramatic Reductions of Terrestrial Net Carbon Uptake Over North America in 2011 and 2012. *Journal of Geophysical Research G: Biogeosciences*, **2018**, 123, 2053-2071 | 3.7 | 18 |
| 75 | Negative extreme events in gross primary productivity and their drivers in China during the past three decades. *Agricultural and Forest Meteorology*, **2019**, 275, 47-58 | 5.8 | 17 |
| 74 | System of Systems Model for Analysis of Biofuel Development. *Journal of Infrastructure Systems*, **2015**, 21, 04014050 | 2.9 | 17 |
| 73 | Carbon and energy fluxes in cropland ecosystems: a model-data comparison. *Biogeochemistry*, **2016** , 129, 53-76 | 3.8 | 17 |
| 72 | Carbon and Water Use Efficiencies: A Comparative Analysis of Ten Terrestrial Ecosystem Models under Changing Climate. *Scientific Reports*, **2019**, 9, 14680 | 4.9 | 16 |
| 71 | Radiative Forcing of Climate Change. *Space Science Reviews*, **2000**, 94, 363-373 | 7.5 | 16 |
| 70 | Global warming potential assessment for CF3OCF = CF2. *Journal of Geophysical Research*, **2000**, 105, 4019-4029 | | 16 |
| 69 | Planning for future energy resources. *Science*, **2003**, 300, 581-4; author reply 581-4 | 33.3 | 15 |
| 68 | Future atmospheric methane concentrations in the context of the stabilization of greenhouse gas concentrations. *Journal of Geophysical Research*, **1999**, 104, 19183-19190 | | 15 |
| 67 | Contrasting effects of CO<sub>2</sub> fertilization, land-use change and warming on seasonal amplitude of Northern Hemisphere CO<sub>2</sub> exchange. *Atmospheric Chemistry and Physics*, **2019**, 19, 12361-12375 | 6.8 | 14 |
| 66 | A globally aggregated reconstruction of cycles of carbon and its isotopes. *Tellus, Series B: Chemical and Physical Meteorology*, **1996**, 48, 583-600 | 3.3 | 14 |
| 65 | The Interplay Between Bioenergy Grass Production and Water Resources in the United States of America. *Environmental Science & Technology*, **2016**, 50, 3010-9 | 10.3 | 14 |

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| 64 | Is there an imbalance in the global budget of bomb-produced radiocarbon?. *Journal of Geophysical Research*, **1997**, 102, 1327-1333 | | 13 |
| 63 | Comment on "Modern-age buildup of CO2 and its effects on seawater acidity and salinity" by Hugo A. Loáiciga. *Geophysical Research Letters*, **2007**, 34, | 4.9 | 13 |
| 62 | The effect of Indian summer monsoon on the seasonal variation of carbon sequestration by a forest ecosystem over North-East India. *SN Applied Sciences*, **2020**, 2, 1 | 1.8 | 12 |
| 61 | Land use change and El Niño-Southern Oscillation drive decadal carbon balance shifts in Southeast Asia. *Nature Communications*, **2018**, 9, 1154 | 17.4 | 12 |
| 60 | Assessing the effectiveness of direct injection for ocean carbon sequestration under the influence of climate change. *Geophysical Research Letters*, **2005**, 32, | 4.9 | 12 |
| 59 | Advancing Land Change Modeling **2014**, | | 12 |
| 58 | Implementation of a dynamic rooting depth and phenology into a land surface model: Evaluation of carbon, water, and energy fluxes in the high latitude ecosystems. *Agricultural and Forest Meteorology*, **2015**, 211-212, 85-99 | 5.8 | 11 |
| 57 | Crop models capture the impacts of climate variability on corn yield. *Geophysical Research Letters*, **2015**, 42, 3356-3363 | 4.9 | 11 |
| 56 | An Earth system model of intermediate complexity: Simulation of the role of ocean mixing parameterizations and climate change in estimated uptake for natural and bomb radiocarbon and anthropogenic CO2. *Journal of Geophysical Research*, **2005**, 110, | | 11 |
| 55 | Impacts on Global Ozone and Climate from Use and Emission of 2,2-Dichloro-1,1,1-Trifluoroethane (HCFC-123). *Climatic Change*, **1999**, 42, 439-474 | 4.5 | 11 |
| 54 | Evaluation of simulated soil carbon dynamics in Arctic-Boreal ecosystems. *Environmental Research Letters*, **2020**, 15, 025005 | 6.2 | 11 |
| 53 | Contrasting interannual atmospheric CO<sub>2</sub> variabilities and their terrestrial mechanisms for two types of El Niños. *Atmospheric Chemistry and Physics*, **2018**, 18, 10333-10345 | 6.8 | 11 |
| 52 | Slowdown of the greening trend in natural vegetation with further rise in atmospheric CO<sub>2</sub>. *Biogeosciences*, **2021**, 18, 4985-5010 | 4.6 | 11 |
| 51 | Estimating Trends and Variation of Net Biome Productivity in India for 1980–2012 Using a Land Surface Model. *Geophysical Research Letters*, **2017**, 44, 11,573-11,579 | 4.9 | 10 |
| 50 | Response of global land evapotranspiration to climate change, elevated CO2, and land use change. *Agricultural and Forest Meteorology*, **2021**, 311, 108663 | 5.8 | 10 |
| 49 | Using a team survey to improve team communication for enhanced delivery of agro-climate decision support tools. *Agricultural Systems*, **2015**, 138, 31-37 | 6.1 | 9 |
| 48 | Causes of slowing-down seasonal CO amplitude at Mauna Loa. *Global Change Biology*, **2020**, 26, 4462-4477 | 11.4 | 9 |
| 47 | Assessing the impact of changes in climate and CO2 on potential carbon sequestration in agricultural soils. *Geophysical Research Letters*, **2005**, 32, n/a-n/a | 4.9 | 9 |

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| 46 | Influence of climate variability, fire and phosphorus limitation on vegetation structure and dynamics of the Amazon□Cerrado border. *Biogeosciences*, **2018**, 15, 919-936 | 4.6 | 9 |
| 45 | Impacts of land use change and elevated CO<sub>2</sub> on the interannual variations and seasonal cycles of gross primary productivity in China. *Earth System Dynamics*, **2020**, 11, 235-249 | 4.8 | 8 |
| 44 | Evaluation of the atmospheric lifetime and radiative forcing on climate for 1,2,2,2-tetrafluoroethyl trifluoromethyl ether (CF3OCHFCF3). *Journal of Geophysical Research*, **2001**, 106, 12615-12618 | | 8 |
| 43 | . *Tellus, Series B: Chemical and Physical Meteorology*, **1987**, 39B, 326-328 | 3.3 | 7 |
| 42 | Assessing the representation of the Australian carbon cycle in global vegetation models. *Biogeosciences*, **2021**, 18, 5639-5668 | 4.6 | 7 |
| 41 | Climate-Driven Variability and Trends in Plant Productivity Over Recent Decades Based on Three Global Products. *Global Biogeochemical Cycles*, **2020**, 34, e2020GB006613 | 5.9 | 7 |
| 40 | Differing methods of accounting ocean carbon sequestration efficiency. *Journal of Geophysical Research*, **2004**, 109, | | 6 |
| 39 | Potential climatic consequences of increasing anthropogenic constituents in the atmosphere. *Atmospheric Environment*, **1986**, 20, 639-642 | | 6 |
| 38 | Definitions and methods to estimate regional land carbon fluxes for the second phase of the REgional Carbon Cycle Assessment and Processes Project (RECCAP-2). *Geoscientific Model Development*, **2022**, 15, 1289-1316 | 6.3 | 6 |
| 37 | Contribution of environmental forcings to US runoff changes for the period 1950□2010. *Environmental Research Letters*, **2018**, 13, 054023 | 6.2 | 5 |
| 36 | The effectiveness of measures to reduce the man-made greenhouse effect. The application of a Climate-policy Model. *Theoretical and Applied Climatology*, **1994**, 49, 103-118 | 3 | 5 |
| 35 | The CFC greenhouse potential of scenarios possible under the montreal protocol. *International Journal of Climatology*, **1990**, 10, 439-450 | 3.5 | 5 |
| 34 | Peak growing season patterns and climate extremes-driven responses of gross primary production estimated by satellite and process based models over North America. *Agricultural and Forest Meteorology*, **2021**, 298-299, 108292 | 5.8 | 5 |
| 33 | Global vegetation biomass production efficiency constrained by models and observations. *Global Change Biology*, **2020**, 26, 1474-1484 | 11.4 | 5 |
| 32 | Comparing national greenhouse gas budgets reported in UNFCCC inventories against atmospheric inversions | | 5 |
| 31 | Impact of environmental changes and land management practices on wheat production in India. *Earth System Dynamics*, **2020**, 11, 641-652 | 4.8 | 4 |
| 30 | Global Carbon Budget 2018 | | 4 |
| 29 | Contribution of CH4 to Multi-Gas Emission Reduction Targets **2000**, 425-432 | | 4 |

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| 28 | Enhanced regional terrestrial carbon uptake over Korea revealed by atmospheric CO measurements from 1999 to 2017. *Global Change Biology*, **2020**, 26, 3368-3383 | 11.4 | 3 |
| 27 | Learning about the ocean carbon cycle from observational constraints and model simulations of multiple tracers. *Climatic Change*, **2008**, 89, 45-66 | 4.5 | 3 |
| 26 | Modeling the effects of two different land cover change data sets on the carbon stocks of plants and soils in concert with CO2and climate change. *Global Biogeochemical Cycles*, **2005**, 19, n/a-n/a | 5.9 | 3 |
| 25 | Implementation of dynamic crop growth processes into a land surface model: evaluation of energy, water and carbon fluxes under corn and soybean rotation | | 3 |
| 24 | Global Carbon Budget 2016 | | 3 |
| 23 | Estimation of Permafrost SOC Stock and Turnover Time Using a Land Surface Model With Vertical Heterogeneity of Permafrost Soils. *Global Biogeochemical Cycles*, **2020**, 34, e2020GB006585 | 5.9 | 3 |
| 22 | Investigating Wetland and Nonwetland Soil Methane Emissions and Sinks Across the Contiguous United States Using a Land Surface Model. *Global Biogeochemical Cycles*, **2020**, 34, e2019GB006251 | 5.9 | 3 |
| 21 | Comparing national greenhouse gas budgets reported in UNFCCC inventories against atmospheric inversions. *Earth System Science Data*, **2022**, 14, 1639-1675 | 10.5 | 3 |
| 20 | Possible climatic implications of depletion of Antarctic ozone. *Tellus, Series B: Chemical and Physical Meteorology*, **1987**, 39, 326-328 | 3.3 | 2 |
| 19 | Indirect global warming effects of ozone and stratospheric water vapor induced by surface methane emission | | 2 |
| 18 | Can we reconcile differences in estimates of carbon fluxes from land-use change and forestry for the 1990s? | | 2 |
| 17 | Reduction of the atmospheric concentration of methane as a strategic response option to global climate change **1999**, 775-780 | | 2 |
| 16 | Greening drylands despite warming consistent with carbon dioxide fertilization effect. *Global Change Biology*, **2021**, 27, 3336-3349 | 11.4 | 2 |
| 15 | Linking global terrestrial CO<sub>2</sub> fluxes and environmental drivers: inferences from the Orbiting Carbon Observatory´2 satellite and terrestrial biospheric models. *Atmospheric Chemistry and Physics*, **2021**, 21, 6663-6680 | 6.8 | 2 |
| 14 | Five years of variability in the global carbon cycle: comparing an estimate from the Orbiting Carbon Observatory-2 and process-based models. *Environmental Research Letters*, **2021**, 16, 054041 | 6.2 | 2 |
| 13 | Response to Comments on "Recent global decline of CO fertilization effects on vegetation photosynthesis". *Science*, **2021**, 373, eabg7484 | 33.3 | 2 |
| 12 | Carbon Emissions from Land-Use Change: Model Estimates Using Three Different Data Sets241-258 | | 1 |
| 11 | Global Air Pollution Problems337-375 | | 1 |

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| 10 | On the meridional distribution of climate changes due to doubling of CO2 content in the atmosphere. *Theoretical and Applied Climatology*, **1986**, 37, 15-21 | 3 | 1 |
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