# Martin Heimann

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 270 papers | 32,845 citations | 6250<br>80 h-index | 5532<br>163 g-index |
| 337 all docs | 337 docs citations | 337 times ranked | 23300 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Modelling the long-range transport of <sup>222</sup>Rn to subantarctic and antarctic areas. Tellus, Series B: Chemical and Physical Meteorology, 2022, 42, 83. | 0.8 | 34 |
| 2 | Impact of drought stress and other factors on seasonal land biosphere CO<sub>2</sub> exchange studied through an atmospheric tracer transport model. Tellus, Series B: Chemical and Physical Meteorology, 2022, 47, 471. | 0.8 | 65 |
| 3 | A first-order analysis of the potential rôle of CO<sub>2</sub> fertilization to affect the global carbon budget: a comparison of four terrestrial biosphere models. Tellus, Series B: Chemical and Physical Meteorology, 2022, 51, 343. | 0.8 | 49 |
| 4 | Isotopic composition and origin of polar precipitation in present and glacial climate simulations. Tellus, Series B: Chemical and Physical Meteorology, 2022, 53, 53. | 0.8 | 90 |
| 5 | Time-dependent atmospheric CO<sub>2</sub> inversions based on interannually varying tracer transport. Tellus, Series B: Chemical and Physical Meteorology, 2022, 55, 488. | 0.8 | 21 |
| 6 | TransCom 3 CO<sub>2</sub> inversion intercomparison: 1. Annual mean control results and sensitivity to transport and prior flux information. Tellus, Series B: Chemical and Physical Meteorology, 2022, 55, 555. | 0.8 | 105 |
| 7 | Two decades of ocean CO<sub>2</sub> sink and variability. Tellus, Series B: Chemical and Physical Meteorology, 2022, 55, 649. | 0.8 | 20 |
| 8 | Reconciling apparent inconsistencies in estimates of terrestrial CO<sub>2</sub> sources and sinks. Tellus, Series B: Chemical and Physical Meteorology, 2022, 55, 345. | 0.8 | 13 |
| 9 | Vulnerability of permafrost carbon to global warming. Part I: model description and role of heat generated by organic matter decomposition. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 250. | 0.8 | 87 |
| 10 | Methane budget estimates in Finland from the CarbonTracker Europe-CH<sub>4</sub> data assimilation system. Tellus, Series B: Chemical and Physical Meteorology, 2022, 71, 1565030. | 0.8 | 11 |
| 11 | The CO<sub>2</sub> record at the Amazon Tall Tower Observatory: A new opportunity to study processes on seasonal and interâ€annual scales. Global Change Biology, 2022, 28, 588-611. | 4.2 | 8 |
| 12 | Three-dimensional transport and concentration of SF<sub>6</sub> A model intercomparison study (TransCom 2). Tellus, Series B: Chemical and Physical Meteorology, 2022, 51, 266. | 0.8 | 88 |
| 13 | Three years of trace gas observations over the EuroSiberian domain derived from aircraft sampling â€" a concerted action. Tellus, Series B: Chemical and Physical Meteorology, 2022, 54, 696. | 0.8 | 10 |
| 14 | Earlier snowmelt may lead to late season declines in plant productivity and carbon sequestration in Arctic tundra ecosystems. Scientific Reports, 2022, 12, 3986. | 1.6 | 16 |
| 15 | Overview: Recent advances in the understanding of the northern Eurasian environments and of the urban air quality in China â€" a Pan-Eurasian Experiment (PEEX) programme perspective. Atmospheric Chemistry and Physics, 2022, 22, 4413-4469. | 1.9 | 9 |
| 16 | Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO<sub>2</sub>. New Phytologist, 2021, 229, 2413-2445. | 3.5 | 286 |
| 17 | The climate benefit of carbon sequestration. Biogeosciences, 2021, 18, 1029-1048. | 1.3 | 24 |
| 18 | Winter CO2 Fluxes in Ecosystems of Central Siberia: Comparative Estimates Using Three Different Approaches. Russian Journal of Ecology, 2021, 52, 126-135. | 0.3 | 1 |

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| 19 | Temperature Control of Spring CO2 Fluxes at a Coniferous Forest and a Peat Bog in Central Siberia. Atmosphere, 2021, 12, 984. | 1.0 | 6 |
| 20 | FLUXNET-CH<sub>4</sub>: a global, multi-ecosystem dataset and analysis of methane seasonality from freshwater wetlands. Earth System Science Data, 2021, 13, 3607-3689. | 3.7 | 79 |
| 21 | Continuous CO2 and CH4 Observations in the Coastal Arctic Atmosphere of the Western Taimyr Peninsula, Siberia: The First Results from a New Measurement Station in Dikson. Atmosphere, 2021, 12, 876. | 1.0 | 8 |
| 22 | Gap-filling eddy covariance methane fluxes: Comparison of machine learning model predictions and uncertainties at FLUXNET-CH4 wetlands. Agricultural and Forest Meteorology, 2021, 308-309, 108528. | 1.9 | 33 |
| 23 | The European carbon cycle response to heat and drought as seen from atmospheric CO <sub>2</sub> data for 1999â€“2018. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190506. | 1.8 | 19 |
| 24 | Causes of slowingâ€down seasonal CO<sub>2</sub> amplitude at Mauna Loa. Global Change Biology, 2020, 26, 4462-4477. | 4.2 | 14 |
| 25 | Marine Nitrous Oxide Emissions From Three Eastern Boundary Upwelling Systems Inferred From Atmospheric Observations. Geophysical Research Letters, 2020, 47, e2020GL087822. | 1.5 | 12 |
| 26 | Toward an Operational Anthropogenic CO2 Emissions Monitoring and Verification Support Capacity. Bulletin of the American Meteorological Society, 2020, 101, E1439-E1451. | 1.7 | 63 |
| 27 | Parameter calibration and stomatal conductance formulation comparison for boreal forests with adaptive population importance sampler in the land surface model JSBACH. Geoscientific Model Development, 2019, 12, 4075-4098. | 1.3 | 10 |
| 28 | Drainage enhances modern soil carbon contribution but reduces old soil carbon contribution to ecosystem respiration in tundra ecosystems. Global Change Biology, 2019, 25, 1315-1325. | 4.2 | 27 |
| 29 | Negative feedback processes following drainage slow down permafrost degradation. Global Change Biology, 2019, 25, 3254-3266. | 4.2 | 26 |
| 30 | Recent Warming Has Resulted in Smaller Gains in Net Carbon Uptake in Northern High Latitudes. Journal of Climate, 2019, 32, 5849-5863. | 1.2 | 6 |
| 31 | Airâ€“sea fluxes of greenhouse gases and oxygen in the northern Benguela Current region during upwelling events. Biogeosciences, 2019, 16, 4065-4084. | 1.3 | 10 |
| 32 | Three decades of simulated global terrestrial carbon fluxes from a data assimilation system confronted with different periods of observations. Biogeosciences, 2019, 16, 3009-3032. | 1.3 | 4 |
| 33 | Influence of the Underlying Surface on Greenhouse Gas Concentrations in the Atmosphere Over Central Siberia. Geography and Natural Resources, 2019, 40, 221-229. | 0.1 | 3 |
| 34 | Accurate measurements of atmospheric carbon dioxide and methane mole fractions at the Siberian coastal site Ambarchik. Atmospheric Measurement Techniques, 2019, 12, 5717-5740. | 1.2 | 4 |
| 35 | Strong radiative effect induced by clouds and smoke on forest net ecosystem productivity in central Siberia. Agricultural and Forest Meteorology, 2018, 250-251, 376-387. | 1.9 | 39 |
| 36 | Technical Note: Atmospheric CO<sub>2</sub> inversions on the mesoscale using data-driven prior uncertainties: methodology and system evaluation. Atmospheric Chemistry and Physics, 2018, 18, 3027-3045. | 1.9 | 20 |

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|---|---|---|---|
| 37 | Atmospheric CO<sub>2</sub> inversions on the mesoscale using data-driven prior uncertainties: quantification of the European terrestrial CO<sub>2</sub> fluxes. Atmospheric Chemistry and Physics, 2018, 18, 3047-3064. | 1.9 | 30 |
| 38 | Direct effect of aerosols on solar radiation and gross primary production in boreal and hemiboreal forests. Atmospheric Chemistry and Physics, 2018, 18, 17863-17881. | 1.9 | 50 |
| 39 | History of El NiÃ±o impacts on the global carbon cycle 1957â€“2017: a quantification from atmospheric CO <sub>2</sub> data. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170303. | 1.8 | 42 |
| 40 | How does the terrestrial carbon exchange respond to inter-annual climatic variations? A quantification based on atmospheric CO<sub>2</sub> data. Biogeosciences, 2018, 15, 2481-2498. | 1.3 | 68 |
| 41 | COCAP: a carbon dioxide analyser for small unmanned aircraft systems. Atmospheric Measurement Techniques, 2018, 11, 1833-1849. | 1.2 | 22 |
| 42 | Interannual Variability of Atmospheric CO2 Concentrations over Central Siberia from ZOTTO Data for 2009â€“2015. Russian Meteorology and Hydrology, 2018, 43, 288-294. | 0.2 | 9 |
| 43 | Early snowmelt significantly enhances boreal springtime carbon uptake. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11081-11086. | 3.3 | 84 |
| 44 | Highâ€quality eddyâ€covariance CO<sub>2</sub> budgets under cold climate conditions. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 2064-2084. | 1.3 | 28 |
| 45 | Warming effects on the urban hydrology in cold climate regions. Scientific Reports, 2017, 7, 5833. | 1.6 | 20 |
| 46 | Contrasting and interacting changes in simulated spring and summer carbon cycle extremes in European ecosystems. Environmental Research Letters, 2017, 12, 075006. | 2.2 | 32 |
| 47 | Plants, microorganisms, and soil temperatures contribute to a decrease in methane fluxes on a drained Arctic floodplain. Global Change Biology, 2017, 23, 2396-2412. | 4.2 | 54 |
| 48 | Long-term measurements (2010â€“2014) of carbonaceous aerosol and carbon monoxide at the Zotino Tall Tower Observatory (ZOTTO) in central Siberia. Atmospheric Chemistry and Physics, 2017, 17, 14365-14392. | 1.9 | 33 |
| 49 | Longâ€Term Drainage Reduces CO<sub>2</sub> Uptake and CH<sub>4</sub> Emissions in a Siberian Permafrost Ecosystem. Global Biogeochemical Cycles, 2017, 31, 1704-1717. | 1.9 | 36 |
| 50 | Global inverse modeling of CH<sub>4</sub> sources and sinks: an overview of methods. Atmospheric Chemistry and Physics, 2017, 17, 235-256. | 1.9 | 75 |
| 51 | HIMMELI v1.0: HelsinkI Model of MEthane buiLd-up and emIssion for peatlands. Geoscientific Model Development, 2017, 10, 4665-4691. | 1.3 | 24 |
| 52 | Shifted energy fluxes, increased Bowen ratios, and reduced thaw depths linked with drainage-induced changes in permafrost ecosystem structure. Cryosphere, 2017, 11, 2975-2996. | 1.5 | 34 |
| 53 | MERLIN: A French-German Space Lidar Mission Dedicated to Atmospheric Methane. Remote Sensing, 2017, 9, 1052. | 1.8 | 88 |
| 54 | Have precipitation extremes and annual totals been increasing in the world's dry regions over the last 60Âyears?. Hydrology and Earth System Sciences, 2017, 21, 441-458. | 1.9 | 22 |

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| 55 | Long-term drainage reduces CO<sub>2</sub> uptake and increases CO<sub>2</sub> emission on a Siberian floodplain due to shifts in vegetation community and soil thermal characteristics. Biogeosciences, 2016, 13, 4219-4235. | 1.3 | 28 |
| 56 | Constraining a land-surface model with multiple observations by application of the MPI-Carbon Cycle Data Assimilation System V1.0. Geoscientific Model Development, 2016, 9, 2999-3026. | 1.3 | 30 |
| 57 | Assessment of recent advances in measurement techniques for atmospheric carbon dioxide and methane observations. Atmospheric Measurement Techniques, 2016, 9, 4737-4757. | 1.2 | 31 |
| 58 | A novel bias correction methodology for climate impact simulations. Earth System Dynamics, 2016, 7, 71-88. | 2.7 | 75 |
| 59 | Sources of and variations in tropospheric CO in Central Siberia: Numerical experiments and observations at the Zotino Tall Tower Observatory. Izvestiya - Atmospheric and Oceanic Physics, 2016, 52, 45-56. | 0.2 | 9 |
| 60 | Observation and integrated Earth-system science: A roadmap for 2016â€"2025. Advances in Space Research, 2016, 57, 2037-2103. | 1.2 | 35 |
| 61 | Pan-Eurasian Experiment (PEEX): towards a holistic understanding of the feedbacks and interactions in the landâ€"atmosphereâ€"oceanâ€"society continuum in the northern Eurasian region. Atmospheric Chemistry and Physics, 2016, 16, 14421-14461. | 1.9 | 57 |
| 62 | Linking trace gas measurements and molecular tracers of organic matter in aerosols for identification of ecosystem sources and types of wildfires in Central Siberia. IOP Conference Series: Earth and Environmental Science, 2016, 48, 012017. | 0.2 | 5 |
| 63 | The benefits of investing into improved carbon flux monitoring. Cogent Economics and Finance, 2016, 4, 1239672. | 0.8 | 1 |
| 64 | Enhanced seasonal CO <sub>2</sub> exchange caused by amplified plant productivity in northern ecosystems. Science, 2016, 351, 696-699. | 6.0 | 319 |
| 65 | GROUND-BASED STATION NETWORK IN ARCTIC AND SUBARCTIC EURASIA: AN OVERVIEW. Geography, Environment, Sustainability, 2016, 9, 75-88. | 0.6 | 9 |
| 66 | Impacts of a decadal drainage disturbance on surfaceâ€"atmosphere fluxes of carbon dioxide in a permafrost ecosystem. Biogeosciences, 2016, 13, 5315-5332. | 1.3 | 15 |
| 67 | The Amazon Tall Tower Observatory (ATTO): overview of pilot measurements on ecosystem ecology, meteorology, trace gases, and aerosols. Atmospheric Chemistry and Physics, 2015, 15, 10723-10776. | 1.9 | 218 |
| 68 | Quantifying changes in climate variability and extremes: Pitfalls and their overcoming. Geophysical Research Letters, 2015, 42, 9990-9998. | 1.5 | 64 |
| 69 | Continuous measurements of greenhouse gases and atmospheric oxygen at the Namib Desert Atmospheric Observatory. Atmospheric Measurement Techniques, 2015, 8, 2233-2250. | 1.2 | 12 |
| 70 | Variability of ground CO2 concentration in the middle taiga subzone of the Yenisei region of Siberia. Russian Journal of Ecology, 2015, 46, 143-151. | 0.3 | 6 |
| 71 | Long-term trend in CO2 concentration in the surface atmosphere over Central Siberia. Russian Meteorology and Hydrology, 2015, 40, 186-190. | 0.2 | 13 |
| 72 | Temporal Variability of Đ¡Đž2 and Đ¡Đ4 Concentration in the Atmosphere of Middle Taiga Ecosystems of Siberia. Izvestiya Rossiiskaya Akademii Nauk, Seriya Geograficheskaya, 2015, , 112. | 0.2 | 2 |

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| 73 | Interannual seaâ€“air CO<sub>2</sub> flux variability from an observation-driven ocean mixed-layer scheme. Biogeosciences, 2014, 11, 4599-4613. | 1.3 | 111 |
| 74 | Current systematic carbon-cycle observations and the need for implementing a policy-relevant carbon observing system. Biogeosciences, 2014, 11, 3547-3602. | 1.3 | 189 |
| 75 | Inferences from CO<sub>2</sub> and CH<sub>4</sub> concentration profiles at the Zotino Tall Tower Observatory (ZOTTO) on regional summertime ecosystem fluxes. Biogeosciences, 2014, 11, 2055-2068. | 1.3 | 22 |
| 76 | Comment on "Carbon farming in hot, dry coastal areas: an option for climate change mitigation" by Becker et al. (2013). Earth System Dynamics, 2014, 5, 41-42. | 2.7 | 1 |
| 77 | A two-fold increase of carbon cycle sensitivity to tropical temperature variations. Nature, 2014, 506, 212-215. | 13.7 | 284 |
| 78 | Carbon and Other Biogeochemical Cycles. , 2014, , 465-570. | | 435 |
| 79 | The BETHY/JSBACH Carbon Cycle Data Assimilation System: experiences and challenges. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 1414-1426. | 1.3 | 86 |
| 80 | Three decades of global methane sources and sinks. Nature Geoscience, 2013, 6, 813-823. | 5.4 | 1,649 |
| 81 | Arctic: Uncertainties in methane link. Nature, 2013, 500, 529-529. | 13.7 | 2 |
| 82 | Multidisciplinary Studies of the Global Carbon Cycle. Eos, 2013, 94, 426-426. | 0.1 | 0 |
| 83 | Long-term measurements of aerosol and carbon monoxide at the ZOTTO tall tower to characterize polluted and pristine air in the Siberian taiga. Atmospheric Chemistry and Physics, 2013, 13, 12271-12298. | 1.9 | 54 |
| 84 | WRF-Chem simulations in the Amazon region during wet and dry season transitions: evaluation of methane models and wetland inundation maps. Atmospheric Chemistry and Physics, 2013, 13, 7961-7982. | 1.9 | 33 |
| 85 | Climate sensitivity in the Anthropocene. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 1121-1131. | 1.0 | 24 |
| 86 | Modeling the large-scale effects of surface moisture heterogeneity on wetland carbon fluxes in the West Siberian Lowland. Biogeosciences, 2013, 10, 6559-6576. | 1.3 | 42 |
| 87 | Global surface-ocean <i>p</i><sup>CO<sub>2</sub></sup> and seaâ€“air CO<sub>2</sub> flux variability from an observation-driven ocean mixed-layer scheme. Ocean Science, 2013, 9, 193-216. | 1.3 | 141 |
| 88 | Technical Note: The Simple Diagnostic Photosynthesis and Respiration Model (SDPRM). Biogeosciences, 2013, 10, 6485-6508. | 1.3 | 6 |
| 89 | Validation of routine continuous airborne CO<sub>2</sub> observations near the Bialystok Tall Tower. Atmospheric Measurement Techniques, 2012, 5, 873-889. | 1.2 | 15 |
| 90 | Comparing Lagrangian and Eulerian models for CO<sub>2</sub> transport â€“ a step towards Bayesian inverse modeling using WRF/STILT-VPRM. Atmospheric Chemistry and Physics, 2012, 12, 8979-8991. | 1.9 | 40 |

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| 91 | Iconic CO <sub>2</sub> Time Series at Risk. Science, 2012, 337, 1038-1040. | 6.0 | 15 |
| 92 | Assessment of the regional atmospheric impact of wildfire emissions based on CO observations at the ZOTTO tall tower station in central Siberia. Journal of Geophysical Research, 2011, 116, . | 3.3 | 29 |
| 93 | Importance of fossil fuel emission uncertainties over Europe for CO<sub>2</sub> modeling: model intercomparison. Atmospheric Chemistry and Physics, 2011, 11, 6607-6622. | 1.9 | 87 |
| 94 | Enigma of the recent methane budget. Nature, 2011, 476, 157-158. | 13.7 | 64 |
| 95 | Technical Note: A new coupled system for global-to-regional downscaling of CO<sub>2</sub> concentration estimation. Atmospheric Chemistry and Physics, 2010, 10, 3205-3213. | 1.9 | 33 |
| 96 | Seasonal characteristics of tropical marine boundary layer air measured at the Cape Verde Atmospheric Observatory. Journal of Atmospheric Chemistry, 2010, 67, 87-140. | 1.4 | 97 |
| 97 | European CO2 fluxes from atmospheric inversions using regional and global transport models. Climatic Change, 2010, 103, 93-115. | 1.7 | 31 |
| 98 | The carbon budget of the northern cryosphere region. Current Opinion in Environmental Sustainability, 2010, 2, 231-236. | 3.1 | 61 |
| 99 | Seven years of recent European net terrestrial carbon dioxide exchange constrained by atmospheric observations. Global Change Biology, 2010, 16, 1317-1337. | 4.2 | 223 |
| 100 | Characterization of ecosystem responses to climatic controls using artificial neural networks. Global Change Biology, 2010, 16, 2737-2749. | 4.2 | 75 |
| 101 | Interactions between nitrogen deposition, land cover conversion, and climate change determine the contemporary carbon balance of Europe. Biogeosciences, 2010, 7, 2749-2764. | 1.3 | 53 |
| 102 | Measurements of greenhouse gases and related tracers at Bialystok tall tower station in Poland. Atmospheric Measurement Techniques, 2010, 3, 407-427. | 1.2 | 60 |
| 103 | Continuous low-maintenance CO<sub>2</sub>/CH<sub>4</sub>/H<sub>2</sub& measurements at the Zotino Tall Tower Observatory (ZOTTO) in Central Siberia. Atmospheric Measurement Techniques, 2010, 3, 1113-1128. | 1.2 | 144 |
| 104 | How Stable Is the Methane Cycle?. Science, 2010, 327, 1211-1212. | 6.0 | 34 |
| 105 | European CO2 fluxes from atmospheric inversions using regional and global transport models. , 2010, , 93-115. | | 6 |
| 106 | In-situ measurements of oxygen, carbon monoxide and greenhouse gases from Ochsenkopf tall tower in Germany. Atmospheric Measurement Techniques, 2009, 2, 573-591. | 1.2 | 72 |
| 107 | Reply to L. Kutzbach. Tellus, Series B: Chemical and Physical Meteorology, 2009, 61, 579-580. | 0.8 | 0 |
| 108 | Searching out the sinks. Nature Geoscience, 2009, 2, 3-4. | 5.4 | 19 |

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| 109 | Importance of methane and nitrous oxide for Europe's terrestrial greenhouse-gas balance. Nature Geoscience, 2009, 2, 842-850. | 5.4 | 310 |
| 110 | Old-Growth Forests: Function, Fate and Value â€" an Overview. Ecological Studies, 2009, , 3-10. | 0.4 | 19 |
| 111 | Old-Growth Forest Definitions: a Pragmatic View. Ecological Studies, 2009, , 11-33. | 0.4 | 83 |
| 112 | Sensitivity of the carbon cycle in the Arctic to climate change. Ecological Monographs, 2009, 79, 523-555. | 2.4 | 814 |
| 113 | A two-step scheme for high-resolution regional atmospheric trace gas inversions based on independent models. Atmospheric Chemistry and Physics, 2009, 9, 5331-5342. | 1.9 | 67 |
| 114 | On observational and modelling strategies targeted at regional carbon exchange over continents. Biogeosciences, 2009, 6, 1949-1959. | 1.3 | 55 |
| 115 | Interannual variability in oceanic biogeochemical processes inferred by inversion of atmospheric O2/N2 and CO2 data. Tellus, Series B: Chemical and Physical Meteorology, 2008, 60, 685-705. | 0.8 | 42 |
| 116 | Terrestrial ecosystem carbon dynamics and climate feedbacks. Nature, 2008, 451, 289-292. | 13.7 | 1,245 |
| 117 | Modeling terrestrial <sup>13</sup>C cycling: Climate, land use and fire. Global Biogeochemical Cycles, 2008, 22, . | 1.9 | 30 |
| 118 | Seasonal, synoptic, and diurnalâ€scale variability of biogeochemical trace gases and O<sub>2</sub> from a 300â€m tall tower in central Siberia. Global Biogeochemical Cycles, 2008, 22, . | 1.9 | 43 |
| 119 | Urbanization Impacts on the Climate in Europe: Numerical Experiments by the PSUâ€"NCAR Mesoscale Model (MM5). Journal of Applied Meteorology and Climatology, 2008, 47, 1442-1455. | 0.6 | 119 |
| 120 | A framework for comparing remotely sensed and in-situ CO<sub>2</sub> concentrations. Atmospheric Chemistry and Physics, 2008, 8, 2555-2568. | 1.9 | 18 |
| 121 | Analyzing the causes and spatial pattern of the European 2003 carbon flux anomaly using seven models. Biogeosciences, 2008, 5, 561-583. | 1.3 | 136 |
| 122 | A Roadmap for a Continental-Scale Greenhouse Gas Observing System in Europe. Ecological Studies, 2008, , 377-386. | 0.4 | 0 |
| 123 | Weak Northern and Strong Tropical Land Carbon Uptake from Vertical Profiles of Atmospheric CO2. Science, 2007, 316, 1732-1735. | 6.0 | 775 |
| 124 | Comprehensive comparison of gap-filling techniques for eddy covariance net carbon fluxes. Agricultural and Forest Meteorology, 2007, 147, 209-232. | 1.9 | 744 |
| 125 | Saturation of the Southern Ocean CO2 Sink Due to Recent Climate Change. Science, 2007, 316, 1735-1738. | 6.0 | 779 |
| 126 | Uncertainties of modeling gross primary productivity over Europe: A systematic study on the effects of using different drivers and terrestrial biosphere models. Global Biogeochemical Cycles, 2007, 21, . | 1.9 | 163 |

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| 127 | Satellite chartography of atmospheric methane from SCIAMACHY on board ENVISAT: 2. Evaluation based on inverse model simulations. Journal of Geophysical Research, 2007, 112, . | 3.3 | 263 |
| 128 | Reduction of ecosystem productivity and respiration during the European summer 2003 climate anomaly: a joint flux tower, remote sensing and modelling analysis. Global Change Biology, 2007, 13, 634-651. | 4.2 | 486 |
| 129 | TransCom 3 inversion intercomparison: Impact of transport model errors on the interannual variability of regional CO2fluxes, 1988-2003. Global Biogeochemical Cycles, 2006, 20, n/a-n/a. | 1.9 | 417 |
| 130 | Sensitivity of inverse estimation of annual mean CO2sources and sinks to ocean-only sites versus all-sites observational networks. Geophysical Research Letters, 2006, 33, . | 1.5 | 40 |
| 131 | Insights from simulations with high-resolution transport and process models on sampling of the atmosphere for constraining midlatitude land carbon sinks. Journal of Geophysical Research, 2006, 111, . | 3.3 | 20 |
| 132 | Comparing CO2retrieved from Atmospheric Infrared Sounder with model predictions: Implications for constraining surface fluxes and lower-to-upper troposphere transport. Journal of Geophysical Research, 2006, 111, . | 3.3 | 39 |
| 133 | Satellite chartography of atmospheric methane from SCIAMACHY on board ENVISAT: Analysis of the years 2003 and 2004. Journal of Geophysical Research, 2006, 111, . | 3.3 | 182 |
| 134 | Atmospheric carbon gases retrieved from SCIAMACHY by WFM-DOAS: version 0.5 CO and CH<sub>4</sub> and impact of calibration improvements on CO<sub>2</sub> retrieval. Atmospheric Chemistry and Physics, 2006, 6, 2727-2751. | 1.9 | 143 |
| 135 | Comparisons between SCIAMACHY atmospheric CO<sub>2</sub> retrieved using (FSI) WFM-DOAS to ground based FTIR data and the TM3 chemistry transport model. Atmospheric Chemistry and Physics, 2006, 6, 4483-4498. | 1.9 | 43 |
| 136 | Reconciling Carbon-cycle Concepts, Terminology, and Methods. Ecosystems, 2006, 9, 1041-1050. | 1.6 | 904 |
| 137 | TransCom 3 inversion intercomparison: Impact of transport model errors on the interannual variability of regional CO2fluxes, 1988-2003. Global Biogeochemical Cycles, 2006, 20, n/a-n/a. | 1.9 | 2 |
| 138 | Atmospheric methane and carbon dioxide from SCIAMACHY satellite data: initial comparison with chemistry and transport models. Atmospheric Chemistry and Physics, 2005, 5, 941-962. | 1.9 | 238 |
| 139 | Carbon monoxide, methane and carbon dioxide columns retrieved from SCIAMACHY by WFM-DOAS: year 2003 initial data set. Atmospheric Chemistry and Physics, 2005, 5, 3313-3329. | 1.9 | 162 |
| 140 | Atmospheric CO2 and 13CO2 Exchange with the Terrestrial Biosphere and Oceans from 1978 to 2000: Observations and Carbon Cycle Implications. , 2005, , 83-113. | | 180 |
| 141 | Model-data synthesis in terrestrial carbon observation: methods, data requirements and data uncertainty specifications. Global Change Biology, 2005, 11, 378-397. | 4.2 | 283 |
| 142 | Charles David Keeling 1928â€“2005. Nature, 2005, 437, 331-331. | 13.7 | 24 |
| 143 | The carbon budget of terrestrial ecosystems at country-scale â€“ a European case study. Biogeosciences, 2005, 2, 15-26. | 1.3 | 178 |
| 144 | Impact of 1998-2002 midlatitude drought and warming on terrestrial ecosystem and the global carbon cycle. Geophysical Research Letters, 2005, 32, n/a-n/a. | 1.5 | 99 |

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| 145 | Quantifying, Understanding and Managing the Carbon Cycle in the Next Decades. Climatic Change, 2004, 67, 147-160. | 1.7 | 33 |
| 146 | A model of the Earth's Dole effect. Global Biogeochemical Cycles, 2004, 18, n/a-n/a. | 1.9 | 79 |
| 147 | Transcom 3 inversion intercomparison: Model mean results for the estimation of seasonal carbon sources and sinks. Global Biogeochemical Cycles, 2004, 18, n/a-n/a. | 1.9 | 312 |
| 148 | CH4sources estimated from atmospheric observations of CH4and its13C/12C isotopic ratios: 1. Inverse modeling of source processes. Global Biogeochemical Cycles, 2004, 18, n/a-n/a. | 1.9 | 139 |
| 149 | CH4sources estimated from atmospheric observations of CH4and its13C/12C isotopic ratios: 2. Inverse modeling of CH4fluxes from geographical regions. Global Biogeochemical Cycles, 2004, 18, n/a-n/a. | 1.9 | 99 |
| 150 | Observations of O2:CO2exchange ratios during ecosystem gas exchange. Global Biogeochemical Cycles, 2004, 18, n/a-n/a. | 1.9 | 42 |
| 151 | Pacific dominance to global air-sea CO2 flux variability: A novel atmospheric inversion agrees with ocean models. Geophysical Research Letters, 2004, 31, . | 1.5 | 33 |
| 152 | Inverse modeling of CO<sub>2</sub> sources and sinks using satellite data: a synthetic inter-comparison of measurement techniques and their performance as a function of space and time. Atmospheric Chemistry and Physics, 2004, 4, 523-538. | 1.9 | 222 |
| 153 | The potential for rising CO2 to account for the observed uptake of carbon by tropical, temperate, and Boreal forest biomes. , 2004, , 109-149. |  | 9 |
| 154 | Time-dependent atmospheric CO2 inversions based on interannually varying tracer transport. Tellus, Series B: Chemical and Physical Meteorology, 2003, 55, 488-497. | 0.8 | 71 |
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