

A Scott Denning

List of Publications by Year in descending order

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114
papers

13,804
citations

41323

49
h-index

24961

109
g-index

123
all docs

123
docs citations

123
times ranked

9789
citing authors

#	ARTICLE	IF	CITATIONS
1	Simulations of terrestrial carbon metabolism and atmospheric CO ₂ in a general circulation model: Part 1: Surface carbon fluxes. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 48, 521.	0.8	99
2	A 3-dimensional study of ¹⁸ O in atmospheric CO ₂ : contribution of different land ecosystems. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 51, 642.	0.8	36
3	Can a strong atmospheric CO ₂ rectifier effect be reconciled with a “reasonable” carbon budget?. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 51, 249.	0.8	34
4	TransCom 3 CO ₂ inversion intercomparison: 1. Annual mean control results and sensitivity to transport and prior flux information. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 55, 555.	0.8	105
5	The space and time impacts on U.S. regional atmospheric CO ₂ concentrations from a high resolution fossil fuel CO ₂ emissions inventory. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 62, 506.	0.8	15
6	Impact of entrainment from overshooting thermals on landâ€ˆatmosphere interactions during summer 1999. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 62, 441.	0.8	18
7	Using continental observations in global atmospheric inversions of CO ₂ : North American carbon sources and sinks. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 62, 550.	0.8	43
8	Assessing the impact of crops on regional CO ₂ fluxes and atmospheric concentrations. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 62, 521.	0.8	40
9	North American gross primary productivity: regional characterization and interannual variability. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 62, 533.	0.8	41
10	Simulations of terrestrial carbon metabolism and atmospheric CO ₂ in a general circulation model: Part 2: Simulated CO ₂ concentrations. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 48, 543.	0.8	90
11	Three-dimensional transport and concentration of SF ₆ : A model intercomparison study (TransCom 2). <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 51, 266.	0.8	88
12	Where Has All the Carbon Gone?. <i>Annual Review of Earth and Planetary Sciences</i> , 2022, 50, .	4.6	5
13	COS-derived GPP relationships with temperature and light help explain high-latitude atmospheric CO ₂ seasonal cycle amplification. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	21
14	Accurate Simulation of Both Sensitivity and Variability for Amazonian Photosynthesis: Is It Too Much to Ask?. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2021MS002555.	1.3	3
15	The Atmospheric Carbon and Transport (ACT)-America Mission. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E1714-E1734.	1.7	17
16	A Multiyear Gridded Data Ensemble of Surface Biogenic Carbon Fluxes for North America: Evaluation and Analysis of Results. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2019JG005314.	1.3	14
17	Evaluation of OCO ₂ X Variability at Local and Synoptic Scales using Lidar and In Situ Observations from the ACTâ€ˆAmerica Campaigns. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031400.	1.2	16
18	Surfaceâ€ˆAtmosphere Coupling Scale, the Fate of Water, and Ecophysiological Function in a Brazilian Forest. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 2523-2546.	1.3	6

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19	Reducing Wet Ammonium Deposition in Rocky Mountain National Park: the Development and Evaluation of A Pilot Early Warning System for Agricultural Operations in Eastern Colorado. <i>Environmental Management</i> , 2019, 64, 626-639.	1.2	6
20	Quantifying the Impact of Atmospheric Transport Uncertainty on CO ₂ Surface Flux Estimates. <i>Global Biogeochemical Cycles</i> , 2019, 33, 484-500.	1.9	95
21	100 Years of Earth System Model Development. <i>Meteorological Monographs</i> , 2019, 59, 12.1-12.66.	5.0	48
22	Representing Grasslands Using Dynamic Prognostic Phenology Based on Biological Growth Stages: Part 2. Carbon Cycling. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 4440-4465.	1.3	11
23	Representing Grasslands Using Dynamic Prognostic Phenology Based on Biological Growth Stages: 1. Implementation in the Simple Biosphere Model (SiB4). <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 4423-4439.	1.3	20
24	Closing the scale gap between land surface parameterizations and GCMs with a new scheme, SIB3-ins. <i>Journal of Advances in Modeling Earth Systems</i> , 2017, 9, 691-711.	1.3	38
25	Ientropic transport and the seasonal cycle amplitude of CO ₂ . <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 8106-8124.	1.2	30
26	Carbon and energy fluxes in cropland ecosystems: a model-data comparison. <i>Biogeochemistry</i> , 2016, 129, 53-76.	1.7	24
27	Increasing the Diversity of Your Graduate Program: Translating Best Practices into Success. <i>Bulletin of the American Meteorological Society</i> , 2016, 97, 1169-1172.	1.7	4
28	Estimate of carbonyl sulfide tropical oceanic surface fluxes using Aura Tropospheric Emission Spectrometer observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 11,012.	1.2	43
29	When the long run matters. <i>Climatic Change</i> , 2015, 129, 57-72.	1.7	4
30	An approach for verifying biogenic greenhouse gas emissions inventories with atmospheric CO ₂ concentration data. <i>Environmental Research Letters</i> , 2015, 10, 034012.	2.2	27
31	A sampling method for improving the representation of spatially varying precipitation and soil moisture using the Simple Biosphere Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2014, 6, 9-20.	1.3	2
32	Impact of Evapotranspiration on Dry Season Climate in the Amazon Forest*. <i>Journal of Climate</i> , 2014, 27, 574-591.	1.2	45
33	Evaluating atmospheric CO ₂ inversions at multiple scales over a highly inventoried agricultural landscape. <i>Global Change Biology</i> , 2013, 19, 1424-1439.	4.2	76
34	A coupled model of the global cycles of carbonyl sulfide and CO ₂ : A possible new window on the carbon cycle. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 842-852.	1.3	149
35	Global seasonal variations of midday planetary boundary layer depth from CALIPSO spaceborne LIDAR. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 1226-1233.	1.2	67
36	CO ₂ flux estimation errors associated with moist atmospheric processes. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 6405-6416.	1.9	28

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37	Iconic CO ₂ Time Series at Risk. <i>Science</i> , 2012, 337, 1038-1040.	6.0	15
38	Estimates of North American summertime planetary boundary layer depths derived from spaceborne lidar. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	54
39	A global reanalysis of vegetation phenology. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	105
40	Moist synoptic transport of CO ₂ along the mid-latitude storm track. <i>Geophysical Research Letters</i> , 2011, 38, .	1.5	40
41	A regional high-resolution carbon flux inversion of North America for 2004. <i>Biogeosciences</i> , 2010, 7, 1625-1644.	1.3	106
42	Corrigendum to "A regional high-resolution carbon flux inversion of North America for 2004" published in <i>Biogeosciences</i> , 7, 1625-1644, 2010. <i>Biogeosciences</i> , 2010, 7, 2245-2245.	1.3	1
43	Role of deep soil moisture in modulating climate in the Amazon rainforest. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	33
44	Sensitivity of land-atmosphere exchanges to overshooting PBL thermals in an idealized coupled model. <i>Journal of Advances in Modeling Earth Systems</i> , 2009, 2, .	1.3	6
45	Seeing the forest through the trees: Recovering large-scale carbon flux biases in the midst of small-scale variability. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	24
46	Assessing temporal clear-sky errors in assimilation of satellite CO ₂ retrievals using a global transport model. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 3043-3048.	1.9	9
47	TransCom model simulations of hourly atmospheric CO ₂ : Experimental overview and diurnal cycle results for 2002. <i>Global Biogeochemical Cycles</i> , 2008, 22, .	1.9	142
48	TransCom model simulations of hourly atmospheric CO ₂ : Analysis of synoptic-scale variations for the period 2002–2003. <i>Global Biogeochemical Cycles</i> , 2008, 22, .	1.9	119
49	Interannual variations in continental-scale net carbon exchange and sensitivity to observing networks estimated from atmospheric CO ₂ inversions for the period 1980 to 2005. <i>Global Biogeochemical Cycles</i> , 2008, 22, .	1.9	96
50	Possible representation errors in inversions of satellite CO ₂ retrievals. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	43
51	Use of FLUXNET in the Community Land Model development. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	210
52	Combined Simple Biosphere/Carnegie-Ames-Stanford Approach terrestrial carbon cycle model. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	138
53	Sensitivity, uncertainty and time dependence of parameters in a complex land surface model. <i>Agricultural and Forest Meteorology</i> , 2008, 148, 268-287.	1.9	60
54	Evaluation of modeled atmospheric boundary layer depth at the WLEF tower. <i>Agricultural and Forest Meteorology</i> , 2008, 148, 206-215.	1.9	32

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55	Estimation of global CO ₂ fluxes at regional scale using the maximum likelihood ensemble filter. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	42
56	Interannual variability of photosynthesis across Africa and its attribution. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	45
57	Remote sensing data assimilation for a prognostic phenology model. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	160
58	Seasonal drought stress in the Amazon: Reconciling models and observations. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	248
59	Mesoscale inversion: first results from the CERES campaign with synthetic data. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 3459-3471.	1.9	91
60	Mechanisms for synoptic variations of atmospheric CO ₂ in North America, South America and Europe. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 7239-7254.	1.9	60
61	Weak Northern and Strong Tropical Land Carbon Uptake from Vertical Profiles of Atmospheric CO ₂ . <i>Science</i> , 2007, 316, 1732-1735.	6.0	775
62	Observations and simulations of synoptic, regional, and local variations in atmospheric CO ₂ . <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	61
63	Precision requirements for space-based data. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	322
64	Carbon flux bias estimation employing Maximum Likelihood Ensemble Filter (MLEF). <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	78
65	Investigators share improved understanding of the North American Carbon Cycle. <i>Eos</i> , 2007, 88, 255-255.	0.1	3
66	Africa and the global carbon cycle. <i>Carbon Balance and Management</i> , 2007, 2, 3.	1.4	144
67	TransCom 3 inversion intercomparison: Impact of transport model errors on the interannual variability of regional CO ₂ fluxes, 1988-2003. <i>Global Biogeochemical Cycles</i> , 2006, 20, n/a-n/a.	1.9	417
68	Sensitivity of inverse estimation of annual mean CO ₂ sources and sinks to ocean-only sites versus all-sites observational networks. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	40
69	Publisher's correction to "On error estimation in atmospheric CO ₂ inversions". <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	4
70	Using continuous data to estimate clear-sky errors in inversions of satellite CO ₂ measurements. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	21
71	TransCom 3 inversion intercomparison: Impact of transport model errors on the interannual variability of regional CO ₂ fluxes, 1988-2003. <i>Global Biogeochemical Cycles</i> , 2006, 20, n/a-n/a.	1.9	2
72	Testing a model of CO ₂ , water and energy exchange in Great Plains tallgrass prairie and wheat ecosystems. <i>Agricultural and Forest Meteorology</i> , 2005, 131, 162-179.	1.9	53

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73	Simulation of carbon isotope discrimination of the terrestrial biosphere. <i>Global Biogeochemical Cycles</i> , 2005, 19, .	1.9	143
74	The winter Arctic Oscillation, the timing of spring, and carbon fluxes in the Northern Hemisphere. <i>Global Biogeochemical Cycles</i> , 2005, 19, .	1.9	33
75	Mesoscale circulations and atmospheric CO ₂ variations in the Tapaj�s Region, Par�, Brazil. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	40
76	An ensemble data assimilation system to estimate CO ₂ surface fluxes from atmospheric trace gas observations. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	177
77	River breeze circulation in eastern Amazonia: observations and modelling results. <i>Theoretical and Applied Climatology</i> , 2004, 78, 111.	1.3	63
78	Transcom 3 inversion intercomparison: Model mean results for the estimation of seasonal carbon sources and sinks. <i>Global Biogeochemical Cycles</i> , 2004, 18, n/a-n/a.	1.9	312
79	Observed covariance between ecosystem carbon exchange and atmospheric boundary layer dynamics at a site in northern Wisconsin. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	55
80	A multiple-scale simulation of variations in atmospheric carbon dioxide using a coupled biosphere-atmospheric model. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	51
81	The winter Arctic Oscillation and the timing of snowmelt in Europe. <i>Geophysical Research Letters</i> , 2004, 31, .	1.5	21
82	Estimates of net CO ₂ flux by application of equilibrium boundary layer concepts to CO ₂ and water vapor measurements from a tall tower. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	64
83	TransCom 3 CO ₂ inversion intercomparison: 1. Annual mean control results and sensitivity to transport and prior flux information. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2003, 55, 555-579.	0.8	235
84	Simulated variations in atmospheric CO ₂ over a Wisconsin forest using a coupled ecosystem-atmosphere model. <i>Global Change Biology</i> , 2003, 9, 1241-1250.	4.2	76
85	Simulated and observed fluxes of sensible and latent heat and CO ₂ at the WLEF-TV tower using SiB2.5. <i>Global Change Biology</i> , 2003, 9, 1262-1277.	4.2	88
86	The Common Land Model. <i>Bulletin of the American Meteorological Society</i> , 2003, 84, 1013-1024.	1.7	1,058
87	Effect of climate on interannual variability of terrestrial CO ₂ fluxes. <i>Global Biogeochemical Cycles</i> , 2002, 16, 49-1-49-12.	1.9	51
88	On error estimation in atmospheric CO ₂ inversions. <i>Journal of Geophysical Research</i> , 2002, 107, ACL 10-1.	3.3	79
89	Carbon isotope discrimination of arctic and boreal biomes inferred from remote atmospheric measurements and a biosphere-atmosphere model. <i>Global Biogeochemical Cycles</i> , 2002, 16, 1-1-1-15.	1.9	47
90	A possible global covariance between terrestrial gross primary production and ¹³ C discrimination: Consequences for the atmospheric ¹³ C budget and its response to ENSO. <i>Global Biogeochemical Cycles</i> , 2002, 16, 83-1-83-16.	1.9	65

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91	Towards robust regional estimates of CO ₂ sources and sinks using atmospheric transport models. <i>Nature</i> , 2002, 415, 626-630.	13.7	1,157
92	Global observations of the carbon budget: 1. Expected satellite capabilities for emission spectroscopy in the EOS and NPOESS eras. <i>Journal of Geophysical Research</i> , 2001, 106, 20055-20068.	3.3	32
93	The effect of CO ₂ variability on the retrieval of atmospheric temperatures. <i>Geophysical Research Letters</i> , 2001, 28, 3259-3262.	1.5	11
94	Recent patterns and mechanisms of carbon exchange by terrestrial ecosystems. <i>Nature</i> , 2001, 414, 169-172.	13.7	1,162
95	Three-dimensional transport and concentration of SF ₆ . A model intercomparison study (TransCom 2). <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1999, 51, 266-297.	0.8	101
96	KEYNOTE PERSPECTIVE. Can a strong atmospheric CO ₂ rectifier effect be reconciled with a "reasonable" carbon budget?. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1999, 51, 249-253.	0.8	41
97	A 3-dimensional study of delta ¹⁸ O in atmospheric CO ₂ : contribution of different land ecosystems. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1999, 51, 642-667.	0.8	40
98	Influence of biotic exchange and combustion sources on atmospheric CO ₂ concentrations in New England from observations at a forest flux tower. <i>Journal of Geophysical Research</i> , 1999, 104, 9561-9569.	3.3	70
99	Interactions between the atmosphere and terrestrial ecosystems: influence on weather and climate. <i>Global Change Biology</i> , 1998, 4, 461-475.	4.2	524
100	Carbon 13 exchanges between the atmosphere and biosphere. <i>Global Biogeochemical Cycles</i> , 1997, 11, 507-533.	1.9	206
101	Modeling the Exchanges of Energy, Water, and Carbon Between Continents and the Atmosphere. <i>Science</i> , 1997, 275, 502-509.	6.0	1,280
102	A three-dimensional synthesis study of δ ¹⁸ O in atmospheric CO ₂ : 1. Surface fluxes. <i>Journal of Geophysical Research</i> , 1997, 102, 5857-5872.	3.3	200
103	A three-dimensional synthesis study of δ ¹⁸ O in atmospheric CO ₂ : 2. Simulations with the TM2 transport model. <i>Journal of Geophysical Research</i> , 1997, 102, 5873-5883.	3.3	75
104	Variations in modeled atmospheric transport of carbon dioxide and the consequences for CO ₂ inversions. <i>Global Biogeochemical Cycles</i> , 1996, 10, 783-796.	1.9	155
105	Calculation of the global land surface energy, water and CO ₂ fluxes with an off-line version of SiB2. <i>Journal of Geophysical Research</i> , 1996, 101, 19061-19075.	3.3	20
106	A Revised Land Surface Parameterization (SiB2) for GCMs. Part III: The Greening of the Colorado State University General Circulation Model. <i>Journal of Climate</i> , 1996, 9, 738-763.	1.2	131
107	Simulations of terrestrial carbon metabolism and atmospheric CO ₂ in a general circulation model. Part 2: Simulated CO ₂ concentrations. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1996, 48, 543-567.	0.8	69
108	Simulations of terrestrial carbon metabolism and atmospheric CO ₂ in a general circulation model. Part 1: Surface carbon fluxes. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1996, 48, 521-542.	0.8	76

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109	Latitudinal gradient of atmospheric CO ₂ due to seasonal exchange with land biota. <i>Nature</i> , 1995, 376, 240-243.	13.7	384
110	The influence of mountain meteorology on precipitation chemistry at low and high elevations of the Colorado Front Range, U.S.A.. <i>Atmospheric Environment Part A General Topics</i> , 1993, 27, 2337-2349.	1.3	60
111	Hydrologic pathways and chemical composition of runoff during snowmelt in Loch Vale Watershed, Rocky Mountain National Park, Colorado, USA. <i>Water, Air, and Soil Pollution</i> , 1991, 59, 107.	1.1	52
112	Sources of dissolved and particulate organic material in Loch Vale Watershed, Rocky Mountain National Park, Colorado, USA. <i>Biogeochemistry</i> , 1991, 15, 89.	1.7	73
113	Differences between Nipher and Alter shielded Universal Belfort precipitation gages at two Colorado deposition monitoring sites. <i>Environmental Science & Technology</i> , 1990, 24, 758-760.	4.6	8
114	The effects of acid precipitation-long term ecological measurements in loch vale watershed, Rocky Mountain National Park. <i>Environmental Monitoring and Assessment</i> , 1989, 12, 293-293.	1.3	0