Brian C O'neill

List of Publications by Year
in descending order

111 papers	17,176 citations	47006 47 h-index	26613 107 g-index
127 all docs	127 docs citations	127 times ranked	14026 citing authors

#	Article	IF	Citations
1	The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview. Global Environmental Change, 2017, 42, 153-168.	7.8	2,966
2	The Scenario Model Intercomparison Project (ScenarioMIP) for CMIP6. Geoscientific Model Development, 2016, 9, 3461-3482.	3.6	2,084
3	A new scenario framework for climate change research: the concept of shared socioeconomic pathways. Climatic Change, 2014, 122, 387-400.	3.6	1,698
4	The roads ahead: Narratives for shared socioeconomic pathways describing world futures in the 21st century. Global Environmental Change, 2017, 42, 169-180.	7.8	1,656
5	A new scenario framework for Climate Change Research: scenario matrix architecture. Climatic Change, 2014, 122, 373-386.	3.6	510
6	Spatially explicit global population scenarios consistent with the Shared Socioeconomic Pathways. Environmental Research Letters, 2016, 11, 084003.	5.2	476
7	Global urbanization projections for the Shared Socioeconomic Pathways. Global Environmental Change, 2017, 42, 193-199.	7.8	448
8	The need for and use of socio-economic scenarios for climate change analysis: A new approach based on shared socio-economic pathways. Global Environmental Change, 2012, 22, 807-822.	7.8	382
9	Global demographic trends and future carbon emissions. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17521-17526.	7.1	359
10	CLIMATE CHANGE: Dangerous Climate Impacts and the Kyoto Protocol. Science, 2002, 296, 1971-1972.	12.6	294
11	Mapping global urban land for the 21st century with data-driven simulations and Shared Socioeconomic Pathways. Nature Communications, 2020, 11, 2302.	12.8	274
12	Future population exposure to US heat extremes. Nature Climate Change, 2015, 5, 652-655.	18.8	270
13	IPCC reasons for concern regarding climate change risks. Nature Climate Change, 2017, 7, 28-37.	18.8	266
14	Simulating the Biogeochemical and Biogeophysical Impacts of Transient Land Cover Change and Wood Harvest in the Community Climate System Model (CCSM4) from 1850 to 2100. Journal of Climate, 2012, 25, 3071-3095.	3.2	255
15	Achievements and needs for the climate change scenario framework. Nature Climate Change, 2020, 10, 1074-1084.	18.8	245
16	DEMOGRAPHICS: Enhanced: Europe's Population at a Turning Point. Science, 2003, 299, 1991-1992.	12.6	238
17	Climate model projections from the Scenario Model Intercomparison ProjectÂ(ScenarioMIP) of CMIP6. Earth System Dynamics, 2021, 12, 253-293.	7.1	236
18	Anthropogenic Drivers of Ecosystem Change: an Overview. Ecology and Society, 2006, 11, .	2.3	229

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19	Demographic change and carbon dioxide emissions. Lancet, The, 2012, 380, 157-164.	13.7	185
20	The Limits of Consensus. Science, 2007, 317, 1505-1506.	12.6	176
21	Population aging and future carbon emissions in the United States. Energy Economics, 2008, 30, 642-675.	12.1	176
22	A new scenario framework for climate change research: background, process, and future directions. Climatic Change, 2014, 122, 363-372.	3.6	169
23	What would it take to achieve the Paris temperature targets?. Geophysical Research Letters, 2016, 43, 7133-7142.	4.0	164
24	2020 emissions levels required to limit warming to below 2â€‰Â°C. Nature Climate Change, 2013, 3, 405-412.	18.8	159
25	Community climate simulations to assess avoided impacts in 1.5 and 2â€¯â€‰Â°C futures. Earth System Dynamics, 2017, 8, 827-847.	7.1	153
26	Regional, national, and spatially explicit scenarios of demographic and economic change based on SRES. Technological Forecasting and Social Change, 2007, 74, 980-1029.	11.6	142
27	The effect of urbanization on energy use in India and China in the iPETS model. Energy Economics, 2012, 34, S339-S345.	12.1	139
28	Global warming policy: Is population left out in the cold?. Science, 2018, 361, 650-652.	12.6	115
29	Urban and rural energy use and carbon dioxide emissions in Asia. Energy Economics, 2012, 34, S272-S283.	12.1	105
30	The Paris Agreement zero-emissions goal is not always consistent with the 1.5â€‰Â°C and 2â€‰Â°C temperature targets. Nature Climate Change, 2018, 8, 319-324.	18.8	99
31	Spatial modeling of agricultural land use change at global scale. Ecological Modelling, 2014, 291, 152-174.	2.5	98
32	Scenarios for vulnerability: opportunities and constraints in the context of climate change and disaster risk. Climatic Change, 2015, 133, 53-68.	3.6	96
33	Towards decision-based global land use models for improved understanding of the Earth system. Earth System Dynamics, 2014, 5, 117-137.	7.1	88
34	The Jury is Still Out on Global Warming Potentials. Climatic Change, 2000, 44, 427-443.	3.6	87
35	Avoiding population exposure to heat-related extremes: demographic change vs climate change. Climatic Change, 2018, 146, 423-437.	3.6	87
36	Half a degree and rapid socioeconomic development matter for heatwave risk. Nature Communications, 2019, 10, 136.	12.8	85

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37	A Guide to Global Population Projections. Demographic Research, 0, 4, 203-288.	3.0	79
38	Systematic construction of global socioeconomic pathways using internally consistent element combinations. Climatic Change, 2014, 122, 431-445.	3.6	78
39	Climate change impacts are sensitive to the concentration stabilization path. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 16411-16416.	7.1	73
40	The Consistency of IPCC's SRES Scenarios to 1990â€“2000 Trends and Recent Projections. Climatic Change, 2006, 75, 9-46.	3.6	71
41	A new ensemble of GCM simulations to assess avoided impacts in a climate mitigation scenario. Climatic Change, 2018, 146, 303-318.	3.6	71
42	Modelling feedbacks between human and natural processes in the land system. Earth System Dynamics, 2018, 9, 895-914.	7.1	65
43	Negative learning. Climatic Change, 2008, 89, 155-172.	3.6	64
44	Accuracy of past projections of US energy consumption. Energy Policy, 2005, 33, 979-993.	8.8	62
45	Climate impacts of geoengineering in a delayed mitigation scenario. Geophysical Research Letters, 2016, 43, 8222-8229.	4.0	60
46	Evaluating Global Warming Potentials with historical temperature. Climatic Change, 2009, 96, 443-466.	3.6	56
47	Mitigation implications of midcentury targets that preserve long-term climate policy options. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 1011-1016.	7.1	56
48	A unifying framework for metrics for aggregating the climate effect of different emissions. Environmental Research Letters, 2012, 7, 044006.	5.2	55
49	Equilibrium climate sensitivity in light of observations over the warming hiatus. Nature Climate Change, 2015, 5, 449-453.	18.8	44
50	Economics, Natural Science, and the Costs of Global Warming Potentials. Climatic Change, 2003, 58, 251-260.	3.6	43
51	Methods for including income distribution in global CGE models for long-term climate change research. Energy Economics, 2015, 51, 530-543.	12.1	43
52	Historically grounded spatial population projections for the continental United States. Environmental Research Letters, 2013, 8, 044021.	5.2	39
53	Emission metrics under the 2ÂÂ°C climate stabilization target. Climatic Change, 2013, 117, 933-941.	3.6	37
54	Avoided economic impacts of climate change on agriculture: integrating a land surface model (CLM) with a global economic model (iPETS). Climatic Change, 2018, 146, 517-531.	3.6	36

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55	The effect of education on determinants of climate change risks. Nature Sustainability, 2020, 3, 520-528.	23.7	36
56	Learning about the carbon cycle from global budget data. Geophysical Research Letters, 2006, 33, .	4.0	34
57	Integrated assessment of uncertainties in greenhouse gas emissions and their mitigation: Introduction and overview. Technological Forecasting and Social Change, 2007, 74, 873-886.	11.6	32
58	Assessing the costs of historical inaction on climate change. Scientific Reports, 2020, 10, 9173.	3.3	31
59	Data-driven spatial modeling of global long-term urban land development: The SELECT model. Environmental Modelling and Software, 2019, 119, 458-471.	4.5	30
60	Impacts of Demographic Trends on US Household Size and Structure. Population and Development Review, 2007, 33, 567-591.	2.1	29
61	Insufficient forcing uncertainty underestimates the risk of high climate sensitivity. Geophysical Research Letters, 2009, 36, .	4.0	29
62	Burning embers: towards more transparent and robust climate-change risk assessments. Nature Reviews Earth & Environment, 2020, 1, 516-529.	29.7	29
63	Demographic composition and projections of car use in Austria. Vienna Yearbook of Population Research, 2004, 1, 175-202.	0.6	28
64	The Benefits of Reduced Anthropogenic Climate changE (BRACE): a synthesis. Climatic Change, 2018, 146, 287-301.	3.6	27
65	Where next with global environmental scenarios?. Environmental Research Letters, 2008, 3, 045012.	5.2	25
66	Enhancing engagement between the population, environment, and climate research communities: the shared socio-economic pathway process. Population and Environment, 2014, 35, 231-242.	3.0	24
67	A New Toolkit for Developing Scenarios for Climate Change Research and Policy Analysis. Environment, 2014, 56, 6-16.	1.4	24
68	Determinants of Urban Growth during Demographic and Mobility Transitions: Evidence from India, Mexico, and the US. Population and Development Review, 2018, 44, 363-389.	2.1	23
69	Planning for Future Energy Resources. Science, 2003, 300, 581b-584.	12.6	22
70	Conditional Probabilistic Population Projections: An Application to Climate Change. International Statistical Review, 2004, 72, 167-184.	1.9	22
71	Reservoir timescales for anthropogenic Co2 in the atmosphere. Tellus, Series B: Chemical and Physical Meteorology, 1994, 46, 378-389.	1.6	20
72	Population and global warming with and without CO2 targets. Population and Environment, 1997, 18, 389-413.	3.0	20

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73	Population Scenarios Based on Probabilistic Projections: An Application for the Millennium Ecosystem Assessment. Population and Environment, 2005, 26, 229-254.	3.0	20
74	Learning and climate change. Climate Policy, 2006, 6, 585-589.	5.1	20
75	U.S. State-level Projections of the Spatial Distribution of Population Consistent with Shared Socioeconomic Pathways. Sustainability, 2020, 12, 3374.	3.2	18
76	SSPâ€Based Landâ€Use Change Scenarios: A Critical Uncertainty in Future Regional Climate Change Projections. Earth's Future, 2021, 9, e2020EF001782.	6.3	18
77	Probabilistic temperature change projections and energy system implications of greenhouse gas emission scenarios. Technological Forecasting and Social Change, 2007, 74, 936-961.	11.6	16
78	Learning about parameter and structural uncertainty in carbon cycle models. Climatic Change, 2008, 89, 23-44.	3.6	15
79	The Greenhouse Externality to Childbearing: A Sensitivity Analysis. Climatic Change, 2000, 47, 283-324.	3.6	14
80	The response of the climate system to very high greenhouse gas emission scenarios. Environmental Research Letters, 2011, 6, 034005.	5.2	13
81	Mapping the road ahead. Nature Climate Change, 2011, 1, 352-353.	18.8	12
82	Downscaling heterogeneous household outcomes in dynamic CGE models for energy-economic analysis. Energy Economics, 2017, 65, 87-97.	12.1	12
83	Different Spatiotemporal Patterns in Global Human Population and Builtâ€Up Land. Earth's Future, 2021, 9, e2020EF001920.	6.3	12
84	Cairo and climate change: a winâ€"win opportunity. Global Environmental Change, 2000, 10, 93-96.	7.8	11
85	Conditional Probabilistic Population Forecasting. International Statistical Review, 2004, 72, 157-166.	1.9	11
86	Learning from global emissions scenarios. Environmental Research Letters, 2008, 3, 045014.	5.2	11
87	Empirically based spatial projections of US population age structure consistent with the shared socioeconomic pathways. Environmental Research Letters, 2019, 14, 114038.	5.2	11
88	Learning and climate change: an introduction and overview. Climatic Change, 2008, 89, 1-6.	3.6	10
89	Economic and biophysical impacts on agriculture under 1.5 Â°C and 2 Â°C warming. Environmental Research Letters, 2018, 13, 115006.	5.2	10
90	The Long-Term Effect of the Timing of Fertility Decline on Population Size. Effet a long terme de la configuration temporelle de la baisse du taux de fecondite sur les effectifs de population. La oportunidad en que se registra la disminucion de la fecundidad y su efecto a largo plazo en el tamano de la poblacion. Population and Development Review, 1999, 25, 749-756.	2.1	9

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91	Interim targets and the climate treaty regime. Climate Policy, 2006, 5, 639-645.	5.1	9
92	Population, uncertainty, and learning in climate change decision analysis. Climatic Change, 2008, 89, 87-123.	3.6	9
93	Population scenarios for U.S. states consistent with shared socioeconomic pathways. Environmental Research Letters, 2020, 15, 094097.	5.2	9
94	A spatial population downscaling model for integrated human-environment analysis in the United States. Demographic Research, 0, 43, 1483-1526.	3.0	8
95	Pulsations in seafloor spreading rates and transit time dynamics. Geophysical Research Letters, 1994, 21, 1947-1950.	4.0	7
96	Measuring Time in the Greenhouse; An Editorial Essay. Climatic Change, 1997, 37, 491-505.	3.6	7
97	Plausible reductions in future population growth and implications for the environment. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E506.	7.1	7
98	Reservoir timescales for anthropogenic Co2 in the atmosphere. Tellus, Series B: Chemical and Physical Meteorology, 1994, 46, 378-389.	1.6	6
99	Learning and climate change. Climate Policy, 2006, 6, 585-589.	5.1	6
100	The importance of reclassification to understanding urban growth: A demographic decomposition of the United States, 1990â€“2010. Population, Space and Place, 0, , .	2.3	6
101	Comment on â€œThe lifetime of excess atmospheric carbon dioxideâ€•by Berrien Moore III and B. H. Braswell. Global Biogeochemical Cycles, 1995, 9, 167-169.	4.9	5
102	Combat climate change by reducing fertility. Nature, 1998, 396, 307-307.	27.8	5
103	Reply to 'Volcanic effects on climate'. Nature Climate Change, 2016, 6, 4-5.	18.8	4
104	An introduction to the special issue on the Benefits of Reduced Anthropogenic Climate changE (BRACE). Climatic Change, 2018, 146, 277-285.	3.6	4
105	Avoiding hazards of best-guess climate scenarios. Nature, 2006, 440, 740-740.	27.8	3
106	Toward a New Model for Probabilistic Household Forecasts. International Statistical Review, 2004, 72, 51-64.	1.9	3
107	Developing Climate Model Comparisons. Eos, 2014, 95, 462-462.	0.1	3
108	Parallel parameter optimization algorithm in dynamic general equilibrium models. IFAC-PapersOnLine, 2018, 51, 562-567.	0.9	2

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109	Parallel Extended Path Method for Solving Perfect Foresight Models. Computational Economics, 2020, 58, 517.	2.6	2
110	Climate scenarios and their relevance and implications for impact studies. , 2020, , 11-29.		1
111	The use of the Community Earth System Model in human dimensions climate research and applications. Wiley Interdisciplinary Reviews: Climate Change, 2019, 10, e582.	8.1	0