

John A Church

List of Publications by Year in descending order

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Version: 2024-02-01

138
papers

15,355
citations

22132

59
h-index

18633

119
g-index

152
all docs

152
docs citations

152
times ranked

11479
citing authors

#	ARTICLE	IF	CITATIONS
1	Observed poleward freshwater transport since 1970. <i>Nature</i> , 2022, 602, 617-622.	13.7	16
2	Reconciling global mean and regional sea level change in projections and observations. <i>Nature Communications</i> , 2021, 12, 990.	5.8	26
3	Fifty Year Trends in Global Ocean Heat Content Traced to Surface Heat Fluxes in the Sub-Polar Ocean. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091439.	1.5	7
4	Evolving patterns of steric sea-level rise under mitigation scenarios and insights from linear system theory. <i>Climate Dynamics</i> , 2021, 57, 635-656.	1.7	4
5	Projected ocean warming constrained by the ocean observational record. <i>Nature Climate Change</i> , 2021, 11, 834-839.	8.1	27
6	Evaluation of the Local Sea-Level Budget at Tide Gauges Since 1958. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL094502.	1.5	28
7	Ocean-Only FAFMIP: Understanding Regional Patterns of Ocean Heat Content and Dynamic Sea Level Change. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS002027.	1.3	24
8	Regional Dynamic Sea Level Simulated in the CMIP5 and CMIP6 Models: Mean Biases, Future Projections, and Their Linkages. <i>Journal of Climate</i> , 2020, 33, 6377-6398.	1.2	58
9	Detecting a forced signal in satellite-era sea-level change. <i>Environmental Research Letters</i> , 2020, 15, 094079.	2.2	11
10	Processes Responsible for the Southern Hemisphere Ocean Heat Uptake and Redistribution under Anthropogenic Warming. <i>Journal of Climate</i> , 2020, 33, 3787-3807.	1.2	20
11	A Mass and Energy Conservation Analysis of Drift in the CMIP6 Ensemble. <i>Journal of Climate</i> , 2020, , 1-43.	1.2	22
12	Measuring Global Ocean Heat Content to Estimate the Earth Energy Imbalance. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	123
13	Framework for High-End Estimates of Sea Level Rise for Stakeholder Applications. <i>Earth's Future</i> , 2019, 7, 923-938.	2.4	46
14	Adequacy of the Ocean Observation System for Quantifying Regional Heat and Freshwater Storage and Change. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	19
15	Concepts and Terminology for Sea Level: Mean, Variability and Change, Both Local and Global. <i>Surveys in Geophysics</i> , 2019, 40, 1251-1289.	2.1	262
16	Anthropogenic Aerosols, Greenhouse Gases, and the Uptake, Transport, and Storage of Excess Heat in the Climate System. <i>Geophysical Research Letters</i> , 2019, 46, 4894-4903.	1.5	30
17	Meeting User Needs for Sea Level Rise Information: A Decision Analysis Perspective. <i>Earth's Future</i> , 2019, 7, 320-337.	2.4	112
18	Sea Level Change. , 2019, , 493-499.		6

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19	ENSO-Related Global Ocean Heat Content Variations. <i>Journal of Climate</i> , 2019, 32, 45-68.	1.2	13
20	Sea-Level and Climate Change. <i>Encyclopedia of Earth Sciences Series</i> , 2019, , 1485-1492.	0.1	1
21	Sea-Level Trend Uncertainty With Pacific Climatic Variability and Temporally-Correlated Noise. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 1978-1993.	1.0	34
22	Global sea-level budget 1993-present. <i>Earth System Science Data</i> , 2018, 10, 1551-1590.	3.7	409
23	Sea-Level and Climate Change. <i>Encyclopedia of Earth Sciences Series</i> , 2018, , 1-8.	0.1	0
24	Variability and change of sea level and its components in the <sc>I</sc>-<sc>P</sc>acific region during the altimetry era. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 1862-1881.	1.0	17
25	Distinguishing the Quasi-Decadal and Multidecadal Sea Level and Climate Variations in the Pacific: Implications for the ENSO-Like Low-Frequency Variability. <i>Journal of Climate</i> , 2017, 30, 5097-5117.	1.2	23
26	Regional Sea Level Variability and Trends, 1960-2007: A Comparison of Sea Level Reconstructions and Ocean Syntheses. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 9068-9091.	1.0	12
27	Evaluating Model Simulations of Twentieth-Century Sea-Level Rise. Part II: Regional Sea-Level Changes. <i>Journal of Climate</i> , 2017, 30, 8565-8593.	1.2	57
28	No chaos in the satellite-data record. <i>Nature</i> , 2017, 549, 334-334.	13.7	1
29	Evaluating Model Simulations of Twentieth-Century Sea Level Rise. Part I: Global Mean Sea Level Change. <i>Journal of Climate</i> , 2017, 30, 8539-8563.	1.2	64
30	Sea level projections for the Australian region in the 21st century. <i>Geophysical Research Letters</i> , 2017, 44, 8481-8491.	1.5	62
31	The increasing rate of global mean sea-level rise during 1993-2014. <i>Nature Climate Change</i> , 2017, 7, 492-495.	8.1	313
32	Simulating the Role of Surface Forcing on Observed Multidecadal Upper-Ocean Salinity Changes. <i>Journal of Climate</i> , 2016, 29, 5575-5588.	1.2	28
33	Basal melt, seasonal water mass transformation, ocean current variability, and deep convection processes along the Amery Ice Shelf calving front, East Antarctica. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 4946-4965.	1.0	32
34	Anthropogenic forcing dominates global mean sea-level rise since 1970. <i>Nature Climate Change</i> , 2016, 6, 701-705.	8.1	105
35	Interactions between sea-level rise and wave exposure on reef island dynamics in the Solomon Islands. <i>Environmental Research Letters</i> , 2016, 11, 054011.	2.2	163
36	Evaluation of the interdecadal variability of sea surface temperature and sea level in the Pacific in CMIP3 and CMIP5 models. <i>International Journal of Climatology</i> , 2016, 36, 3723-3740.	1.5	33

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37	Sensitivity of Global Upper-Ocean Heat Content Estimates to Mapping Methods, XBT Bias Corrections, and Baseline Climatologies*. <i>Journal of Climate</i> , 2016, 29, 4817-4842.	1.2	83
38	Ocean temperatures chronicle the ongoing warming of Earth. <i>Nature Climate Change</i> , 2016, 6, 116-118.	8.1	123
39	Coastal sea level changes, observed and projected during the 20th and 21st century. <i>Climatic Change</i> , 2016, 134, 269-281.	1.7	153
40	Internal climate memory in observations and models. <i>Geophysical Research Letters</i> , 2015, 42, 1232-1242.	1.5	33
41	Seasonal coastal sea level prediction using a dynamical model. <i>Geophysical Research Letters</i> , 2015, 42, 6747-6753.	1.5	18
42	The Sea Level Response to External Forcings in Historical Simulations of CMIP5 Climate Models*. <i>Journal of Climate</i> , 2015, 28, 8521-8539.	1.2	24
43	Quantifying internally generated and externally forced climate signals at regional scales in CMIP5 models. <i>Geophysical Research Letters</i> , 2015, 42, 9394-9403.	1.5	24
44	Unabated planetary warming and its ocean structure since 2006. <i>Nature Climate Change</i> , 2015, 5, 240-245.	8.1	377
45	Unabated global mean sea-level rise over the satellite altimeter era. <i>Nature Climate Change</i> , 2015, 5, 565-568.	8.1	227
46	Recent Progress in Understanding and Projecting Regional and Global Mean Sea Level Change. <i>Current Climate Change Reports</i> , 2015, 1, 224-246.	2.8	42
47	Information for Australian impact and adaptation planning in response to sea-level rise. , 2015, 65, 127-149.		40
48	Seasonal prediction of global sea level anomalies using an ocean-atmosphere dynamical model. <i>Climate Dynamics</i> , 2014, 43, 2131-2145.	1.7	24
49	Projection of subtropical gyre circulation and associated sea level changes in the Pacific based on CMIP3 climate models. <i>Climate Dynamics</i> , 2014, 43, 131-144.	1.7	39
50	Time of emergence for regional sea-level change. <i>Nature Climate Change</i> , 2014, 4, 1006-1010.	8.1	109
51	Australian sea levels—Trends, regional variability and influencing factors. <i>Earth-Science Reviews</i> , 2014, 136, 155-174.	4.0	106
52	Detection and attribution of global mean thermosteric sea level change. <i>Geophysical Research Letters</i> , 2014, 41, 5951-5959.	1.5	51
53	A review of global ocean temperature observations: Implications for ocean heat content estimates and climate change. <i>Reviews of Geophysics</i> , 2013, 51, 450-483.	9.0	367
54	Sea-Level Rise by 2100. <i>Science</i> , 2013, 342, 1445-1445.	6.0	140

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55	Twentieth-Century Global-Mean Sea Level Rise: Is the Whole Greater than the Sum of the Parts?. Journal of Climate, 2013, 26, 4476-4499.	1.2	197
56	Towards a global regionally varying allowance for sea-level rise. Ocean Engineering, 2013, 71, 17-27.	1.9	65
57	Energy budget constraints on climate response. Nature Geoscience, 2013, 6, 415-416.	5.4	270
58	Characterizing and minimizing the effects of noise in tide gauge time series: relative and geocentric sea level rise around Australia. Geophysical Journal International, 2013, 194, 719-736.	1.0	30
59	Evaluating the ability of process based models to project sea-level change. Environmental Research Letters, 2013, 8, 014051.	2.2	92
60	Sea-Level and Ocean Heat-Content Change. International Geophysics, 2013, , 697-725.	0.6	9
61	Regional Sea-Level Projection. Science, 2012, 336, 550-551.	6.0	55
62	Human-induced global ocean warming on multidecadal timescales. Nature Climate Change, 2012, 2, 524-529.	8.1	116
63	Sea level trends, interannual and decadal variability in the Pacific Ocean. Geophysical Research Letters, 2012, 39, .	1.5	194
64	Rapid barotropic sea level rise from ice sheet melting. Journal of Geophysical Research, 2012, 117, .	3.3	55
65	Comment on "Ocean heat content and Earth's radiation imbalance. II. Relation to climate shifts". Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3466-3468.	0.9	16
66	Absolute Calibration in Bass Strait, Australia: TOPEX, Jason-1 and OSTM/Jason-2. Marine Geodesy, 2011, 34, 242-260.	0.9	65
67	Revisiting the Earth's sea-level and energy budgets from 1961 to 2008. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	415
68	Observed decreases in oxygen content of the global ocean. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	227
69	Understanding and Projecting Sea Level Change. Oceanography, 2011, 24, 130-143.	0.5	104
70	Sea-Level Rise from the Late 19th to the Early 21st Century. Surveys in Geophysics, 2011, 32, 585-602.	2.1	1,238
71	Exploring high-end scenarios for local sea level rise to develop flood protection strategies for a low-lying delta—the Netherlands as an example. Climatic Change, 2011, 109, 617-645.	1.7	166
72	Satellite Altimetry for Geodetic, Oceanographic, and Climate Studies in the Australian Region. , 2011, , 473-508.		27

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73	Sea-Level Rise from the Late 19th to the Early 21st Century. Space Sciences Series of ISSI, 2011, , 585-602.	0.0	53
74	An assessment of climate change impacts and adaptation for the Torres Strait Islands, Australia. Climatic Change, 2010, 102, 405-433.	1.7	102
75	Variability and trends in the directional wave climate of the Southern Hemisphere. International Journal of Climatology, 2010, 30, 475-491.	1.5	223
76	Strong export of Antarctic Bottom Water east of the Kerguelen plateau. Nature Geoscience, 2010, 3, 327-331.	5.4	60
77	The Changing Oceans. Science, 2010, 328, 1453-1453.	6.0	2
78	MODELING PROPOSAL: Coordinating Global Ocean Wave Climate Projections. Bulletin of the American Meteorological Society, 2010, 91, 451-454.	1.7	40
79	An Earth-System Prediction Initiative for the Twenty-First Century. Bulletin of the American Meteorological Society, 2010, 91, 1377-1388.	1.7	88
80	Changes in the global hydrological cycle inferred from ocean salinity. Geophysical Research Letters, 2010, 37, .	1.5	144
81	Progress and Challenges in Monitoring Ocean Temperature and Heat Content. , 2010, , .		2
82	Our changing oceans: conclusions of the first International Symposium on the Effects of climate change on the world's oceans. ICES Journal of Marine Science, 2009, 66, 1435-1438.	1.2	19
83	Evidence for the accelerations of sea level on multi-decade and century timescales. International Journal of Climatology, 2009, 29, 777-789.	1.5	199
84	Lessons Learned from IPCC AR4: Scientific Developments Needed to Understand, Predict, and Respond to Climate Change. Bulletin of the American Meteorological Society, 2009, 90, 497-514.	1.7	47
85	Understanding global sea levels: past, present and future. Sustainability Science, 2008, 3, 9-22.	2.5	211
86	Improved estimates of upper-ocean warming and multi-decadal sea-level rise. Nature, 2008, 453, 1090-1093.	13.7	676
87	Matthias Tomczak. Progress in Oceanography, 2008, 77, 273-275.	1.5	0
88	Changing Expendable Bathythermograph Fall Rates and Their Impact on Estimates of Thermosteric Sea Level Rise. Journal of Climate, 2008, 21, 5657-5672.	1.2	232
89	Simulated Lagrangian pathways between the Leeuwin Current System and the upper-ocean circulation of the southeast Indian Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2007, 54, 797-817.	0.6	124
90	Recent Climate Observations Compared to Projections. Science, 2007, 316, 709-709.	6.0	519

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91	A Change in Circulation?. Science, 2007, 317, 908-909.	6.0	10
92	Antarctic coastal polynya response to climate change. Journal of Geophysical Research, 2007, 112, .	3.3	30
93	Understanding Sea Level Rise and Variability. Eos, 2007, 88, 43.	0.1	38
94	A 20th century acceleration in global sea-level rise. Geophysical Research Letters, 2006, 33, n/a-n/a.	1.5	1,181
95	Role of eddies in cooling the Leeuwin Current. Geophysical Research Letters, 2006, 33, .	1.5	28
96	Eddy shedding and energy conversions in the East Australian Current. Journal of Geophysical Research, 2006, 111, .	3.3	85
97	Sea-level rise at tropical Pacific and Indian Ocean islands. Global and Planetary Change, 2006, 53, 155-168.	1.6	221
98	Pan-oceanic response to increasing anthropogenic aerosols: Impacts on the Southern Hemisphere oceanic circulation. Geophysical Research Letters, 2006, 33, .	1.5	42
99	Statistical description of the East Australian Current low-frequency variability from the WOCE PCM3 array. Marine and Freshwater Research, 2006, 57, 273.	0.7	9
100	Significant decadal-scale impact of volcanic eruptions on sea level and ocean heat content. Nature, 2005, 438, 74-77.	13.7	207
101	Effect of Salinity on Estimating Geostrophic Transport of the Indonesian Throughflow along the IX1 XBT Section. Journal of Oceanography, 2005, 61, 795-801.	0.7	14
102	Coastal and global averaged sea level rise for 1950 to 2000. Geophysical Research Letters, 2005, 32, .	1.5	89
103	Interdecadal water mass changes in the Southern Ocean between 30°E and 160°E. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	56
104	Using Sea Level Rise Projections for Urban Planning in Australia. Journal of Coastal Research, 2004, 202, 586-598.	0.1	72
105	Estimates of the Regional Distribution of Sea Level Rise over the 1950–2000 Period. Journal of Climate, 2004, 17, 2609-2625.	1.2	531
106	TOPEX/Poseidon and Jason-1: Absolute Calibration in Bass Strait, Australia. Marine Geodesy, 2004, 27, 107-131.	0.9	38
107	Near bottom currents and their relation to the transport in the Kuroshio Extension. Geophysical Research Letters, 2004, 31, .	1.5	11
108	Absolute Calibration of TOPEX/Poseidon and Jason-1 Using GPS Buoys in Bass Strait, Australia Special Issue: Jason-1 Calibration/Validation. Marine Geodesy, 2003, 26, 285-304.	0.9	58

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109	Does the nonlinearity of the equation of state impose an upper bound on the buoyancy frequency?. Journal of Marine Research, 2003, 61, 745-764.	0.3	8
110	A 6 year record of baroclinic transport variability of the Antarctic Circumpolar Current at 140°E derived from expendable bathythermograph and altimeter measurements. Journal of Geophysical Research, 2002, 107, 19-1.	3.3	45
111	Freshwater and Heat Changes in the North and South Pacific Oceans between the 1960s and 1985-94. Journal of Climate, 2001, 14, 1613-1633.	1.2	54
112	Comparison of results from several AOGCMs for global and regional sea-level change 1900-2100. Climate Dynamics, 2001, 18, 225-240.	1.7	139
113	CLIMATE CHANGE: How Fast Are Sea Levels Rising?. Science, 2001, 294, 802-803.	6.0	33
114	East Australian Current volume transports at 30°S: Estimates from the World Ocean Circulation Experiment hydrographic sections PR11/P6 and the PCM3 current meter array. Journal of Geophysical Research, 2000, 105, 28509-28526.	3.3	83
115	Large-scale freshening of intermediate waters in the Pacific and Indian oceans. Nature, 1999, 400, 440-443.	13.7	245
116	Transports across the Tasman Sea from WOCE repeat sections: The East Australian Current 1990-94. New Zealand Journal of Marine and Freshwater Research, 1997, 31, 469-475.	0.8	19
117	A mechanism for near-shore concentration and estuarine recruitment of post-larval <i>Penaeus plebejus</i> hess (Decapoda, Penaeidae). Estuarine, Coastal and Shelf Science, 1995, 40, 115-138.	0.9	58
118	Processes controlling the larval dispersal and postlarval recruitment of penaeid prawns. Coastal and Estuarine Studies, 1994, , 235-252.	0.4	12
119	Surface Eddy Momentum Flux and Velocity Variances in the Southern Ocean from Geosat Altimetry. Journal of Physical Oceanography, 1994, 24, 2050-2071.	0.7	146
120	A southern hemisphere verification for the TOPEX/POSEIDON satellite altimeter mission. Journal of Geophysical Research, 1994, 99, 24505.	3.3	28
121	The Prediction of Wind-Forced Currents and Sea Level on the Southeast Australian Continental Shelf. Journal of Physical Oceanography, 1994, 24, 2695-2702.	0.7	1
122	Warming of the water column in the southwest Pacific Ocean. Nature, 1992, 357, 59-62.	13.7	96
123	Eddy momentum flux and its contribution to the Southern Ocean momentum balance. Nature, 1992, 357, 482-484.	13.7	82
124	Ocean heat transport across 24°N in the Pacific. Deep-sea Research Part A, Oceanographic Research Papers, 1991, 38, 297-324.	1.6	173
125	The Leeuwin Current off Western Australia, 1986-1987. Journal of Physical Oceanography, 1991, 21, 323-345.	0.7	220
126	Linear systems analysis of momentum on the continental shelf and slope of the central Great Barrier Reef. Journal of Geophysical Research, 1991, 96, 22169-22190.	3.3	22

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127	A Model of Sea Level Rise Caused by Ocean Thermal Expansion. <i>Journal of Climate</i> , 1991, 4, 438-456.	1.2	103
128	Energy Conservation in the Australian Coastal Experiment: Coastal-Trapped Wave Calculations. <i>Journal of Physical Oceanography</i> , 1990, 20, 1113-1114.	0.7	0
129	Current and Density Observations across the Wake of Hurricane Gay. <i>Journal of Physical Oceanography</i> , 1989, 19, 259-265.	0.7	19
130	Currents off south-eastern Australia: results from the Australian coastal experiment. <i>Marine and Freshwater Research</i> , 1988, 39, 245.	0.7	49
131	The Energy Source for the Coastal-Trapped Waves in the Australian Coastal Experiment Region. <i>Journal of Physical Oceanography</i> , 1987, 17, 289-300.	0.7	33
132	The Australian Coastal Experiment: A Search for Coastal-Trapped Waves. <i>Journal of Physical Oceanography</i> , 1986, 16, 1230-1249.	0.7	70
133	Pitfalls with the Numerical Representation of Isopycnal Diapycnal Mixing. <i>Journal of Physical Oceanography</i> , 1986, 16, 196-199.	0.7	46
134	Coastal-Trapped Waves on the East Australian Continental Shelf Part I: Propagation of Modes. <i>Journal of Physical Oceanography</i> , 1986, 16, 1929-1943.	0.7	52
135	Coastal-Trapped Waves on the East Australian Continental Shelf Part II: Model Verification. <i>Journal of Physical Oceanography</i> , 1986, 16, 1945-1957.	0.7	32
136	Modelling the advection of vertically migrating shrimp larvae. <i>Journal of Marine Research</i> , 1983, 41, 511-538.	0.3	101
137	A Permanent Undercurrent Adjacent to the Great Barrier Reef. <i>Journal of Physical Oceanography</i> , 1983, 13, 1747-1749.	0.7	40
138	The East Australian current 1978. <i>Deep-sea Research Part A, Oceanographic Research Papers</i> , 1981, 28, 937-957.	1.6	68