Alexey Fedorov

List of Publications by Year
in descending order

101 papers	6,547 citations	71102 41 h-index	66911 78 g-index
103 all docs	103 docs citations	103 times ranked	5534 citing authors

#	Article	IF	Citations
1	Is El Nino Changing?. Science, 2000, 288, 1997-2002.	12.6	624
2	Understanding El NiÃ±o in Oceanâ€"Atmosphere General Circulation Models: Progress and Challenges. Bulletin of the American Meteorological Society, 2009, 90, 325-340.	3.3	455
3	The Pliocene Paradox (Mechanisms for a Permanent El Nino). Science, 2006, 312, 1485-1489.	12.6	350
4	Patterns and mechanisms of early Pliocene warmth. Nature, 2013, 496, 43-49.	27.8	290
5	Greatly Expanded Tropical Warm Pool and Weakened Hadley Circulation in the Early Pliocene. Science, 2009, 323, 1714-1718.	12.6	256
6	A Stability Analysis of Tropical Oceanâ€"Atmosphere Interactions: Bridging Measurements and Theory for El NiÃ±o. Journal of Climate, 2001, 14, 3086-3101.	3.2	250
7	Tropical cyclones and permanent El NiÃ±o in the early Pliocene epoch. Nature, 2010, 463, 1066-1070.	27.8	217
8	Arctic sea-ice decline weakens the Atlantic Meridional Overturning Circulation. Nature Climate Change, 2017, 7, 604-610.	18.8	190
9	Role of tropics in changing the response to Milankovich forcing some three million years ago. Paleoceanography, 2003, 18, n/a-n/a.	3.0	177
10	How Predictable is El NiÃ±o?. Bulletin of the American Meteorological Society, 2003, 84, 911-920.	3.3	174
11	The impact of westerly wind bursts and ocean initial state on the development, and diversity of El NiÃ±o events. Climate Dynamics, 2015, 44, 1381-1401.	3.8	147
12	Exceptionally strong easterly wind burst stalling El NiÃ±o of 2014. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2005-2010.	7.1	141
13	The extreme El NiÃ±o of 2015â€"2016 and the end of global warming hiatus. Geophysical Research Letters, 2017, 44, 3816-3824.	4.0	141
14	Climate impacts of a weakened Atlantic Meridional Overturning Circulation in a warming climate. Science Advances, 2020, 6, eaaz4876.	10.3	111
15	IS EL NIÃ'O SPORADIC OR CYCLIC?. Annual Review of Earth and Planetary Sciences, 2003, 31, 579-594.	11.0	110
16	Stability of the Atlantic Meridional Overturning Circulation: A Review and Synthesis. Journal of Geophysical Research: Oceans, 2019, 124, 5336-5375.	2.6	109
17	The response of the coupled tropical oceanâ€"atmosphere to westerly wind bursts. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 1-23.	2.7	104
18	Relative importance of meridional and zonal sea surface temperature gradients for the onset of the ice ages and Pliocene-Pleistocene climate evolution. Paleoceanography, 2010, 25, .	3.0	101

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19	Cross-equatorial winds control El NiÃ±o diversity and change. Nature Climate Change, 2018, 8, 798-802.	18.8	97
20	Tightly linked zonal and meridional sea surfaceÂtemperature gradients over the past fiveÂmillionÂyears. Nature Geoscience, 2015, 8, 975-980.	12.9	90
21	The Thermal Structure of the Upper Ocean. Journal of Physical Oceanography, 2004, 34, 888-902.	1.7	82
22	Nonlinear gravityâ€“capillary waves with forcing and dissipation. Journal of Fluid Mechanics, 1998, 354, 1-42.	3.4	79
23	The impact of westerly wind bursts on the diversity and predictability of El NiÃ±o events: An ocean energetics perspective. Geophysical Research Letters, 2014, 41, 4654-4663.	4.0	79
24	The extreme El NiÃ±o of 2015â€“2016: the role of westerly and easterly wind bursts, and preconditioning by the failed 2014 event. Climate Dynamics, 2019, 52, 7339-7357.	3.8	79
25	Wetter subtropics in a warmer world: Contrasting past and future hydrological cycles. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12888-12893.	7.1	76
26	The Effect of Salinity on the Wind-Driven Circulation and the Thermal Structure of the Upper Ocean. Journal of Physical Oceanography, 2004, 34, 1949-1966.	1.7	74
27	Indian Ocean warming can strengthen the Atlantic meridional overturning circulation. Nature Climate Change, 2019, 9, 747-751.	18.8	70
28	The Mechanisms of the Atlantic Meridional Overturning Circulation Slowdown Induced by Arctic Sea Ice Decline. Journal of Climate, 2019, 32, 977-996.	3.2	68
29	Southern Ocean Heat Uptake, Redistribution, and Storage in a Warming Climate: The Role of Meridional Overturning Circulation. Journal of Climate, 2018, 31, 4727-4743.	3.2	66
30	Projected changes of Antarctic krill habitat by the end of the 21st century. Geophysical Research Letters, 2016, 43, 8580-8589.	4.0	65
31	The Leading, Interdecadal Eigenmode of the Atlantic Meridional Overturning Circulation in a Realistic Ocean Model. Journal of Climate, 2013, 26, 2160-2183.	3.2	64
32	Poleward expansion of tropical cyclone latitudes in warming climates. Nature Geoscience, 2022, 15, 14-28.	12.9	63
33	Comparing the impacts of Mioceneâ€“Pliocene changes in inter-ocean gateways on climate: Central American Seaway, Bering Strait, and Indonesia. Earth and Planetary Science Letters, 2016, 444, 116-130.	4.4	62
34	What Controls the Mean Eastâ€“West Sea Surface Temperature Gradient in the Equatorial Pacific: The Role of Cloud Albedo. Journal of Climate, 2014, 27, 2757-2778.	3.2	57
35	Active Pacific meridional overturning circulation (PMOC) during the warm Pliocene. Science Advances, 2017, 3, e1700156.	10.3	55
36	Eastern equatorial Pacific warming delayed by aerosols and thermostat response to CO2 increase. Nature Climate Change, 2021, 11, 696-703.	18.8	52

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37	Global Impacts of Arctic Sea Ice Loss Mediated by the Atlantic Meridional Overturning Circulation. Geophysical Research Letters, 2019, 46, 944-952.	4.0	51
38	Time Scales and Mechanisms for the Tropical Pacific Response to Global Warming: A Tug of War between the Ocean Thermostat and Weaker Walker. Journal of Climate, 2020, 33, 6101-6118.	3.2	51
39	Comment on â€œA 12-million-year temperature history of the tropical Pacific Oceanâ€• Science, 2014, 346, 1467-1467.	12.6	49
40	An experimental and numerical study of parasitic capillary waves. Physics of Fluids, 1998, 10, 1315-1323.	4.0	46
41	Abrupt Climate Changes: How Freshening of the Northern Atlantic Affects the Thermohaline and Wind-Driven Oceanic Circulations. Annual Review of Earth and Planetary Sciences, 2008, 36, 33-58.	11.0	43
42	Simulating Pliocene warmth and a permanent El NiÃ±oâ€like state: The role of cloud albedo. Paleoceanography, 2014, 29, 893-910.	3.0	43
43	Kelvin Fronts on the Equatorial Thermocline. Journal of Physical Oceanography, 2000, 30, 1692-1705.	1.7	42
44	Extra-tropical origin of equatorial Pacific cold bias in climate models with links to cloud albedo. Climate Dynamics, 2017, 49, 2093-2113.	3.8	42
45	Glacial to Holocene changes in trans-Atlantic Saharan dust transport and dust-climate feedbacks. Science Advances, 2016, 2, e1600445.	10.3	41
46	Indian Ocean warming as a driver of the North Atlantic warming hole. Nature Communications, 2020, 11, 4785.	12.8	37
47	The Freshening of Surface Waters in High Latitudes: Effects on the Thermohaline and Wind-Driven Circulations. Journal of Physical Oceanography, 2007, 37, 896-907.	1.7	35
48	Mean energy balance in the tropical Pacific Ocean. Journal of Marine Research, 2008, 66, 1-23.	0.3	34
49	How Much Energy Is Transferred from the Winds to the Thermocline on ENSO Time Scales?. Journal of Climate, 2010, 23, 1563-1580.	3.2	32
50	Robust ENSO across a Wide Range of Climates. Journal of Climate, 2014, 27, 5836-5850.	3.2	31
51	Eastern equatorial Pacific cold tongue evolution since the late Miocene linked to extratropical climate. Science Advances, 2019, 5, eaau6060.	10.3	30
52	Net Energy Dissipation Rates in the Tropical Ocean and ENSO Dynamics. Journal of Climate, 2007, 20, 1108-1117.	3.2	29
53	How the AMOC affects ocean temperatures on decadal to centennial timescales: the North Atlantic versus an interhemispheric seesaw. Climate Dynamics, 2015, 45, 151-160.	3.8	28
54	The Eastern Subtropical Pacific Origin of the Equatorial Cold Bias in Climate Models: A Lagrangian Perspective. Journal of Climate, 2017, 30, 5885-5900.	3.2	28

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55	Tropical cyclogenesis in warm climates simulated by a cloud-system resolving model. Climate Dynamics, 2019, 52, 107-127.	3.8	27
56	Hydraulic jumps at boundaries in rotating fluids. Journal of Fluid Mechanics, 1996, 324, 55-82.	3.4	24
57	Ocean Response to Wind Variations, Warm Water Volume, and Simple Models of ENSO in the Low-Frequency Approximation. Journal of Climate, 2010, 23, 3855-3873.	3.2	24
58	Climate impacts of intermittent upper ocean mixing induced by tropical cyclones. Journal of Geophysical Research, 2011, 116, .	3.3	24
59	Optimal excitation of AMOC decadal variability: Links to the subpolar ocean. Progress in Oceanography, 2015, 132, 287-304.	3.2	23
60	Convective Self-Aggregation and Tropical Cyclogenesis under the Hypohydrostatic Rescaling. Journals of the Atmospheric Sciences, 2016, 73, 525-544.	1.7	23
61	Evidence of the AMOC interdecadal mode related to westward propagation of temperature anomalies in CMIP5 models. Climate Dynamics, 2017, 48, 1517-1535.	3.8	23
62	The equilibrium dynamics and statistics of gravityâ€"capillary waves. Journal of Fluid Mechanics, 2015, 767, 449-466.	3.4	22
63	How well do coupled models replicate ocean energetics relevant to ENSO?. Climate Dynamics, 2011, 36, 2147-2158.	3.8	21
64	Estimating the Diapycnal Transport Contribution to Warm Water Volume Variations in the Tropical Pacific Ocean. Journal of Climate, 2010, 23, 221-237.	3.2	20
65	Stability of the Atlantic meridional overturning circulation and stratification in a zonally averaged ocean model: Effects of freshwater flux, Southern Ocean winds, and diapycnal diffusion. Deep-Sea Research Part II: Topical Studies in Oceanography, 2011, 58, 1927-1943.	1.4	19
66	Interaction between Arctic sea ice and the Atlantic meridional overturning circulation in a warming climate. Climate Dynamics, 2022, 58, 1811-1827.	3.8	19
67	A stronger versus weaker Walker: understanding model differences in fast and slow tropical Pacific responses to global warming. Climate Dynamics, 2021, 57, 2505-2522.	3.8	18
68	Precipitation efficiency constraint on climate change. Nature Climate Change, 2022, 12, 642-648.	18.8	18
69	Propagation and Breaking of Nonlinear Kelvin Waves. Journal of Physical Oceanography, 1995, 25, 2518-2531.	1.7	17
70	Pliocene warmth and gradients. Nature Geoscience, 2015, 8, 419-420.	12.9	17
71	Unstable AMOC during glacial intervals and millennial variability: The role of mean sea ice extent. Earth and Planetary Science Letters, 2015, 429, 60-68.	4.4	17
72	The Effects of Background Zonal and Meridional Winds on ENSO in a Coupled GCM. Journal of Climate, 2020, 33, 2075-2091.	3.2	17

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73	The Ventilated Ocean. Journal of Physical Oceanography, 2012, 42, 141-164.	1.7	15
74	Mechanisms and Impacts of a Partial AMOC Recovery Under Enhanced Freshwater Forcing. Geophysical Research Letters, 2019, 46, 3308-3316.	4.0	15
75	Lagrangian overturning and the Maddenâ€“Julian Oscillation. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 1344-1361.	2.7	14
76	AMOC sensitivity to surface buoyancy fluxes: Stronger ocean meridional heat transport with a weaker volume transport?. Climate Dynamics, 2016, 47, 1497-1513.	3.8	14
77	A Positive Iris Feedback: Insights from Climate Simulations with Temperature-Sensitive Cloudâ€“Rain Conversion. Journal of Climate, 2019, 32, 5305-5324.	3.2	14
78	Pliocene decoupling of equatorial Pacific temperature and pH gradients. Nature, 2021, 598, 457-461.	27.8	14
79	Persistent freshening of the Arctic Ocean and changes in the North Atlantic salinity caused by Arctic sea ice decline. Climate Dynamics, 2021, 57, 2995-3013.	3.8	13
80	Tidal mixing around Indonesia and the Maritime continent: Implications for paleoclimate simulations. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	12
81	The Role of Westerly Wind Bursts During Different Seasons Versus Ocean Heat Recharge in the Development of Extreme El NiÃ±o in Climate Models. Geophysical Research Letters, 2020, 47, e2020GL088381.	4.0	12
82	Model Bias Reduction and the Limits of Oceanic Decadal Predictability: Importance of the Deep Ocean. Journal of Climate, 2013, 26, 3688-3707.	3.2	11
83	Millennial Variability in an Idealized Ocean Model: Predicting the AMOC Regime Shifts. Journal of Climate, 2014, 27, 3551-3564.	3.2	10
84	North Pacific temperature and precipitation response to El NiÃ±o-like equatorial heating: sensitivity to forcing location. Climate Dynamics, 2019, 53, 2731-2741.	3.8	10
85	Linking the Maddenâ€“Julian Oscillation, tropical cyclones and westerly wind bursts as part of El NiÃ±o development. Climate Dynamics, 2021, 57, 1039-1060.	3.8	10
86	Intensification of Westerly Wind Bursts Caused by the Coupling of the Maddenâ€Julian Oscillation to SST During El NiÃ±o Onset and Development. Geophysical Research Letters, 2021, 48, e2020GL089395.	4.0	9
87	Predictability and Decadal Variability of the North Atlantic Ocean State Evaluated from a Realistic Ocean Model. Journal of Climate, 2017, 30, 477-498.	3.2	8
88	Sustained mid-Pliocene warmth led to deep water formation in the North Pacific. Nature Geoscience, 2022, 15, 658-663.	12.9	8
89	Excitation of SST anomalies in the eastern equatorial Pacific by oceanic optimal perturbations. Journal of Marine Research, 2010, 68, 597-624.	0.3	7
90	The impacts of oceanic deep temperature perturbations in the North Atlantic on decadal climate variability and predictability. Climate Dynamics, 2018, 51, 2341-2357.	3.8	7

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91	Oceanic Pathways of an Active Pacific Meridional Overturning Circulation (PMOC). Geophysical Research Letters, 2021, 48, e2020GL091935.	4.0	7
92	The seesaw response of the intertropical and South Pacific convergence zones to hemispherically asymmetric thermal forcing. Climate Dynamics, 2020, 54, 1639-1653.	3.8	6
93	Sensitivity of the Atlantic meridional overturning circulation and climate to tropical Indian Ocean warming. Climate Dynamics, 2021, 57, 2433-2451.	3.8	6
94	Regional variations in the ocean response to tropical cyclones: Ocean mixing versus low cloud suppression. Geophysical Research Letters, 2017, 44, 1947-1955.	4.0	5
95	A Sea Surface Height Perspective on El NiÃ±o Diversity, Ocean Energetics, and Energy Damping Rates. Geophysical Research Letters, 2020, 47, e2019GL086742.	4.0	4
96	Excitation of the Maddenâ€"Julian Oscillation in Atmospheric Adjustment to Equatorial Heating. Journals of the Atmospheric Sciences, 2021, 78, 3933-3950.	1.7	4
97	A Model of Strongly Forced Wind Waves. Journal of Physical Oceanography, 2009, 39, 2502-2522.	1.7	2
98	Equatorial modons in dry and moist-convective shallow-water systems on a rotating sphere. Journal of Fluid Mechanics, 2021, 916, .	3.4	1
99	Simulating Pliocene warmth and a permanent El NiÃ±o-like state: The role of cloud albedo. , 2014, 29, 893.		1
100	Severe drought conditions in northern East Asia during the early Pliocene caused by weakened Pacific meridional temperature gradient. Geophysical Research Letters, 0, , .	4.0	1
101	Equatorial Waves. , 2019, , 606-621.		0