Soon-Il An

List of Publications by Year
in descending order

Version: 2024-02-01

145 papers	10,072 citations	61984 43 h-index	37204 96 g-index
163 all docs	163 docs citations	163 times ranked	6116 citing authors

#	Article	IF	Citations
1	Two Types of El NiÃ±o Events: Cold Tongue El NiÃ±o and Warm Pool El NiÃ±o. Journal of Climate, 2009, 22, 1499-1515.	3.2	1,137
2	The impact of global warming on the tropical Pacific Ocean and El NiÃ±o. Nature Geoscience, 2010, 3, 391-397.	12.9	1,029
3	El NiÃ±oâ€“Southern Oscillation complexity. Nature, 2018, 559, 535-545.	27.8	702
4	ENSO and greenhouse warming. Nature Climate Change, 2015, 5, 849-859.	18.8	596
5	Nonlinearity and Asymmetry of ENSO*. Journal of Climate, 2004, 17, 2399-2412.	3.2	395
6	Interdecadal Change of the Structure of the ENSO Mode and Its Impact on the ENSO Frequency*. Journal of Climate, 2000, 13, 2044-2055.	3.2	365
7	ENSO Atmospheric Teleconnections and Their Response to Greenhouse Gas Forcing. Reviews of Geophysics, 2018, 56, 185-206.	23.0	330
8	The Influence of a Weakening of the Atlantic Meridional Overturning Circulation on ENSO. Journal of Climate, 2007, 20, 4899-4919.	3.2	282
9	Strong El NiÃ±o events and nonlinear dynamical heating. Geophysical Research Letters, 2003, 30, 20-1.	4.0	258
10	Warm Pool and Cold Tongue El NiÃ±o Events as Simulated by the GFDL 2.1 Coupled GCM. Journal of Climate, 2010, 23, 1226-1239.	3.2	189
11	Thermocline and Zonal Advective Feedbacks Within the Equatorial Ocean Recharge Oscillator Model for ENSO. Geophysical Research Letters, 1999, 26, 2989-2992.	4.0	187
12	Linking Emergence of the Central Pacific El NiÃ±o to the Atlantic Multidecadal Oscillation. Journal of Climate, 2015, 28, 651-662.	3.2	163
13	Collective Role of Thermocline and Zonal Advective Feedbacks in the ENSO Mode*. Journal of Climate, 2001, 14, 3421-3432.	3.2	155
14	ENSO Suppression due to Weakening of the North Atlantic Thermohaline Circulation*. Journal of Climate, 2005, 18, 3122-3139.	3.2	153
15	Response of El NiÃ±o sea surface temperature variability to greenhouse warming. Nature Climate Change, 2014, 4, 786-790.	18.8	147
16	Why the properties of El NiÃ±o changed during the late 1970s. Geophysical Research Letters, 2001, 28, 3709-3712.	4.0	139
17	Decadal change in relationship between east Asian and WNP summer monsoons. Geophysical Research Letters, 2005, 32, .	4.0	138
18	Interannual Variations of the Tropical Ocean Instability Wave and ENSO. Journal of Climate, 2008, 21, 3680-3686.	3.2	124

#	Article	IF	Citations
19	Recent progress on two types of El NiÃ±o: Observations, dynamics, and future changes. Asia-Pacific Journal of Atmospheric Sciences, 2014, 50, 69-81.	2.3	124
20	Late-twentieth-century emergence of the El NiÃ±o propagation asymmetry and future projections. Nature, 2013, 504, 126-130.	27.8	116
21	Role of the ENSOâ€“Indian Ocean coupling on ENSO variability in a coupled GCM. Geophysical Research Letters, 2006, 33, .	4.0	112
22	The Effect of Orbital Forcing on the Mean Climate and Variability of the Tropical Pacific. Journal of Climate, 2007, 20, 4147-4159.	3.2	111
23	The role of mean state on changes in El NiÃ±oâ€™s flavor. Climate Dynamics, 2011, 37, 1205-1215.	3.8	103
24	A method for detecting season-dependent modes of climate variability: S-EOF analysis. Geophysical Research Letters, 2005, 32, .	4.0	96
25	A review of interdecadal changes in the nonlinearity of the El NiÃ±o-Southern Oscillation. Theoretical and Applied Climatology, 2009, 97, 29-40.	2.8	93
26	Mechanisms of Locking of the El NiÃ±o and La NiÃ±a Mature Phases to Boreal Winter*. Journal of Climate, 2001, 14, 2164-2176.	3.2	92
27	An eigen analysis of the interdecadal changes in the structure and frequency of ENSO mode. Geophysical Research Letters, 2000, 27, 2573-2576.	4.0	90
28	Decadal amplitude modulation of two types of ENSO and its relationship with the mean state. Climate Dynamics, 2012, 38, 2631-2644.	3.8	85
29	El NiÃ±oâ€“La NiÃ±a Asymmetry in the Coupled Model Intercomparison Project Simulations*. Journal of Climate, 2005, 18, 2617-2627.	3.2	84
30	Changes in weather and climate extremes over Korea and possible causes: A review. Asia-Pacific Journal of Atmospheric Sciences, 2015, 51, 103-121.	2.3	82
31	Changes in El NiÃ±o and La NiÃ±a teleconnections over North Pacificâ€“America in the global warming simulations. Theoretical and Applied Climatology, 2010, 100, 275-282.	2.8	76
32	A Systematic Approximation of the SST Anomaly Equation for ENSO.. Journal of the Meteorological Society of Japan, 2001, 79, 1-10.	1.8	73
33	Successive Modulation of ENSO to the Future Greenhouse Warming. Journal of Climate, 2008, 21, 3-21.	3.2	72
34	ENSO and East Asian winter monsoon relationship modulation associated with the anomalous northwest Pacific anticyclone. Climate Dynamics, 2017, 49, 1157-1179.	3.8	66
35	Interdecadal changes in the El Nino-La Nina asymmetry. Geophysical Research Letters, 2004, 31, .	4.0	61
36	Preconditions for El NiÃ±o and La NiÃ±a onsets and their relation to the Indian Ocean. Geophysical Research Letters, 2005, 32, .	4.0	57

#	Article	IF	Citations
37	Comparison of past and future simulations of ENSO in CMIP5/PMIP3 and CMIP6/PMIP4 models. Climate of the Past, 2020, 16, 1777-1805.	3.4	56
38	The Role of Zonal Advection Feedback in Phase Transition and Growth of ENSO in the Cane-Zebiak Model. Journal of the Meteorological Society of Japan, 1999, 77, 1151-1160.	1.8	54
39	Feedback processes responsible for El NiÃ±oâ€Ła NiÃ±a amplitude asymmetry. Geophysical Research Letters, 2015, 42, 5556-5563.	4.0	54
40	Interactive Feedback between the Tropical Pacific Decadal Oscillation and ENSO in a Coupled General Circulation Model. Journal of Climate, 2009, 22, 6597-6611.	3.2	53
41	Symmetric and antisymmetric mass exchanges between the equatorial and off-equatorial Pacific associated with ENSO. Journal of Geophysical Research, 2003, 108, .	3.3	52
42	Recent and future sea surface temperature trends in tropical pacific warm pool and cold tongue regions. Climate Dynamics, 2012, 39, 1373-1383.	3.8	51
43	Mid-Holocene tropical Pacific climate state, annual cycle, and ENSO in PMIP2 and PMIP3. Climate Dynamics, 2014, 43, 957-970.	3.8	49
44	Role of nonlinear ocean dynamic response to wind on the asymmetrical transition of El NiÃ±o and La NiÃ±a. Geophysical Research Letters, 2017, 44, 393-400.	4.0	47
45	A Nonlinear Analysis of the ENSO Cycle and Its Interdecadal Changes*. Journal of Climate, 2005, 18, 3229-3239.	3.2	41
46	Conditional Maximum Covariance Analysis and Its Application to the Tropical Indian Ocean SST and Surface Wind Stress Anomalies*. Journal of Climate, 2003, 16, 2932-2938.	3.2	39
47	The Influence of ENSO on the Generation of Decadal Variability in the North Pacific*. Journal of Climate, 2007, 20, 667-680.	3.2	39
48	Modeling evidence for enhanced El NiÃ±o-Southern Oscillation amplitude during the Last Glacial Maximum. Paleoceanography, 2004, 19, n/a-n/a.	3.0	35
49	A global-scale multidecadal variability driven by Atlantic multidecadal oscillation. National Science Review, 2020, 7, 1190-1197.	9.5	35
50	ENSO-Like and ENSO-Induced Tropical Pacific Decadal Variability in CGCMs. Journal of Climate, 2013, 26, 1485-1501.	3.2	34
51	On the subarctic North Atlantic cooling due to global warming. Theoretical and Applied Climatology, 2013, 114, 9-19.	2.8	33
52	Altered atmospheric responses to eastern Pacific and central Pacific El NiÃ±os over the North Atlantic region due to stratospheric interference. Climate Dynamics, 2014, 42, 159-170.	3.8	33
53	A near-annual coupled ocean-atmosphere mode in the equatorial Pacific ocean. Geophysical Research Letters, 2003, 30, .	4.0	32
54	A dynamic link between the basin-scale and zonal modes in the Tropical Indian Ocean. Theoretical and Applied Climatology, 2004, 78, 203.	2.8	32

#	Article	IF	Citations
55	Hysteresis of the intertropical convergence zone to CO2 forcing. Nature Climate Change, 2022, 12, 47-53.	18.8	32
56	The Forced and Intrinsic Low-Frequency Modes in the North Pacific*. Journal of Climate, 2005, 18, 876-885.	3.2	31
57	A physical mechanism of the precipitation dipole in the western United States based on PDOâ€storm track relationship. Geophysical Research Letters, 2014, 41, 4719-4726.	4.0	31
58	ENSO Transition Asymmetry: Internal and External Causes and Intermodel Diversity. Geophysical Research Letters, 2018, 45, 5095-5104.	4.0	31
59	The impact of tropical western Pacific convection on the North Pacific atmospheric circulation during the boreal winter. Climate Dynamics, 2014, 43, 2227-2238.	3.8	30
60	Kelvin and Rossby Wave Contributions to the SST Oscillation of ENSO. Journal of Climate, 1998, 11, 2461-2469.	3.2	29
61	The Inverse Effect of Annual-Mean State and Annual-Cycle Changes on ENSO. Journal of Climate, 2010, 23, 1095-1110.	3.2	28
62	Atmospheric Responses of Gill-Type and Lindzenâ€“Nigam Models to Global Warming. Journal of Climate, 2011, 24, 6165-6173.	3.2	27
63	A Near-Annual Pacific Ocean Basin Mode. Journal of Climate, 2004, 17, 2478-2488.	3.2	26
64	Inter-decadal change in El NiÃ±o-Southern Oscillation examined with Bjerknes stability index analysis. Climate Dynamics, 2016, 47, 967-979.	3.8	25
65	Mean sea surface temperature changes influence ENSO-related precipitation changes in the mid-latitudes. Nature Communications, 2021, 12, 1495.	12.8	24
66	A Further Investigation of the Recharge Oscillator Paradigm for ENSO Using a Simple Coupled Model with the Zonal Mean and Eddy Separated. Journal of Climate, 2000, 13, 1987-1993.	3.2	23
67	Changes in the leading ENSO modes associated with the late 1970s climate shift: Role of surface zonal current. Geophysical Research Letters, 2006, 33, .	4.0	23
68	Interaction between Near-Annual and ENSO Modes in a CGCM Simulation: Role of the Equatorial Background Mean State. Journal of Climate, 2007, 20, 1035-1052.	3.2	23
69	Linear solutions for the frequency and amplitude modulation of ENSO by the annual cycle. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 63, 238.	1.7	23
70	A linkage between the North Atlantic Oscillation and its downstream development due to the existence of a blocking ridge. Journal of Geophysical Research, 2011, 116, .	3.3	22
71	Vertical structure variability and equatorial waves during central Pacific and eastern Pacific El NiÃ±os in a coupled general circulation model. Climate Dynamics, 2012, 38, 2275-2289.	3.8	22
72	Low-Frequency Variability of Temperature in the Vicinity of the Equatorial Pacific Thermocline in SODA: Role of Equatorial Wave Dynamics and ENSO Asymmetry. Journal of Climate, 2009, 22, 5783-5795.	3.2	21

#	Article	IF	Citations
73	Role of tropical atlantic SST variability as a modulator of El NiÃ±o teleconnections. Asia-Pacific Journal of Atmospheric Sciences, 2014, 50, 247-261.	2.3	21
74	The effects of <scp>ENSO</scp> under negative <scp>AO</scp> phase on spring dust activity over northern China: an observational investigation. International Journal of Climatology, 2015, 35, 935-947.	3.5	21
75	The internal origin of the west-east asymmetry of Antarctic climate change. Science Advances, 2020, 6, eaaz1490.	10.3	21
76	Midâ€latitude leading doubleâ€dip La NiÃ±a. International Journal of Climatology, 2021, 41, E1353.	3.5	21
77	Global Cooling Hiatus Driven by an AMOC Overshoot in a Carbon Dioxide Removal Scenario. Earth's Future, 2021, 9, e2021EF002165.	6.3	21
78	Projected Heat Wave Characteristics over the Korean Peninsula During the Twenty-First Century. Asia-Pacific Journal of Atmospheric Sciences, 2018, 54, 53-61.	2.3	20
79	North Atlantic observations sharpen meridional overturning projections. Climate Dynamics, 2018, 50, 4171-4188.	3.8	20
80	ENSO Feedbacks and Associated Time Scales of Variability in a Multimodel Ensemble. Journal of Climate, 2010, 23, 3181-3204.	3.2	19
81	Why the twenty-first century tropical Pacific trend pattern cannot significantly influence ENSO amplitude?. Climate Dynamics, 2015, 44, 133-146.	3.8	18
82	Interannual variability of western North Pacific SST anomalies and its impact on North Pacific and North America. Climate Dynamics, 2017, 49, 3787-3798.	3.8	18
83	Quantitative assessment of the climate components driving the pacific decadal oscillation in climate models. Theoretical and Applied Climatology, 2013, 112, 431-445.	2.8	17
84	Role of the western hemisphere warm pool in climate variability over the western North Pacific. Climate Dynamics, 2019, 53, 2743-2755.	3.8	17
85	Seasonal locking of the ENSO asymmetry and its influence on the seasonal cycle of the tropical eastern Pacific sea surface temperature. Atmospheric Research, 2009, 94, 3-9.	4.1	16
86	Inverse relationship between the equatorial eastern Pacific annual-cycle and ENSO amplitudes in a coupled general circulation model. Climate Dynamics, 2013, 40, 663-675.	3.8	16
87	Feedback process responsible for intermodel diversity of ENSO variability. Geophysical Research Letters, 2017, 44, 4272-4279.	4.0	16
88	Arctic Sea Ice Loss as a Potential Trigger for Central Pacific El NiÃ±o Events. Geophysical Research Letters, 2020, 47, e2020GL087028.	4.0	16
89	Asymmetrical response of summer rainfall in East Asia to CO2 forcing. Science Bulletin, 2022, 67, 213-222.	9.0	16
90	Contrasting response of hydrological cycle over land and ocean to a changing CO2 pathway. Npj Climate and Atmospheric Science, 2021, 4, .	6.8	16

#	Article	IF	Citations
91	Sensitivity of ENSO to Stratification in a Rechargeâ€“Discharge Conceptual Model. Journal of Climate, 2011, 24, 4332-4349.	3.2	15
92	An alterative effect by the tropical North Atlantic SST in intraseasonally varying El NiÃ±o teleconnection over the North Atlantic. Tellus, Series A: Dynamic Meteorology and Oceanography, 2013, 65, 19863.	1.7	15
93	Intensity changes of Indian Ocean dipole mode in a carbon dioxide removal scenario. Npj Climate and Atmospheric Science, 2022, 5, .	6.8	15
94	Influence of Recent Stratification Changes on ENSO Stability in a Conceptual Model of the Equatorial Pacific. Journal of Climate, 2013, 26, 4790-4802.	3.2	14
95	Western North Pacific anticyclone change associated with the El NiÃ±oâ€“Indian Ocean Dipole coupling. International Journal of Climatology, 2019, 39, 2505-2521.	3.5	14
96	Diversity of North Pacific Meridional Mode and Its Distinct Impacts on El NiÃ±oâ€Southern Oscillation. Geophysical Research Letters, 2020, 47, e2020GL088993.	4.0	14
97	A mechanism for the multi-decadal climate oscillation in the North Pacific. Theoretical and Applied Climatology, 2008, 91, 77-84.	2.8	13
98	Understanding ENSO Regime Behavior upon an Increase in the Warm-Pool Temperature Using a Simple ENSO Model. Journal of Climate, 2011, 24, 1438-1450.	3.2	13
99	Seasonality of Tropical Instability Waves and Its Feedback to the Seasonal Cycle in the Tropical Eastern Pacific. Scientific World Journal, The, 2012, 2012, 1-11.	2.1	13
100	Asymmetric impact of Atlantic Multidecadal Oscillation on El NiÃ±o and La NiÃ±a characteristics. Geophysical Research Letters, 2015, 42, 4998-5004.	4.0	13
101	Impact of ENSO on East Asian winter monsoon during interglacial periods: effect of orbital forcing. Climate Dynamics, 2017, 49, 3209-3219.	3.8	12
102	Feedback process responsible for the suppression of ENSO activity during the mid-Holocene. Theoretical and Applied Climatology, 2018, 132, 779-790.	2.8	12
103	Propagating decadal sea surface temperature signal identified in modern proxy records of the tropical Pacific. Climate Dynamics, 2006, 28, 163-179.	3.8	11
104	Blunt ocean dynamical thermostat in response of tropical eastern Pacific SST to global warming. Theoretical and Applied Climatology, 2014, 118, 173-183.	2.8	11
105	Seesawing of Winter Temperature Extremes between East Asia and North America. Journal of Climate, 2021, 34, 4423-4434.	3.2	11
106	Tropical Pacific basin-wide adjustment and oceanic waves. Geophysical Research Letters, 2001, 28, 3975-3978.	4.0	10
107	Changes in the role of Pacific decadal oscillation on sea ice extent variability across the mid-1990s. Scientific Reports, 2020, 10, 17564.	3.3	10
108	Rateâ€Dependent Hysteresis of the Atlantic Meridional Overturning Circulation System and Its Asymmetric Loop. Geophysical Research Letters, 2021, 48, e2020GL090132.	4.0	10

#	Article	IF	Citations
109	Effects of freshwater runoff on a tropical pacific climate in the HadGEM2. Asia-Pacific Journal of Atmospheric Sciences, 2012, 48, 457-463.	2.3	9
110	Fokkerâ€“Planck dynamics of the El NiÃ±o-Southern Oscillation. Scientific Reports, 2020, 10, 16282.	3.3	9
111	Characteristics of the North Pacific Oscillation in CMIP5 Models in Relation to Atmospheric Mean States. Journal of Climate, 2020, 33, 3809-3825.	3.2	9
112	Untangling El NiÃ±oâ€La NiÃ±a Asymmetries Using a Nonlinear Coupled Dynamic Index. Geophysical Research Letters, 2020, 47, e2019GL085881.	4.0	9
113	Role of the Bay of Bengal warming in the Indian summer monsoon rainfall trend. Climate Dynamics, 2022, 59, 1733-1751.	3.8	9
114	Local versus nonâ€local atmospheric weather noise and the North Pacific SST variability. Geophysical Research Letters, 2007, 34, .	4.0	8
115	Timescaleâ€dependent <scp>AMOCâ€“AMO</scp> relationship in an earth system model of intermediate complexity. International Journal of Climatology, 2021, 41, E3298.	3.5	8
116	Increased Indian Ocean-North Atlantic Ocean warming chain under greenhouse warming. Nature Communications, 2022, 13, .	12.8	8
117	A novel method to test non-exclusive hypotheses applied to Arctic ice projections from dependent models. Nature Communications, 2019, 10, 3016.	12.8	6
118	On the Slow Mode of a Simple Air-sea Coupled Model. Journal of the Meteorological Society of Japan, 2000, 78, 159-165.	1.8	5
119	Relative roles of the equatorial upper ocean zonal current and thermocline in determining the timescale of the tropical climate system. Theoretical and Applied Climatology, 2005, 81, 121-132.	2.8	5
120	Maintenance of PDO variability during the mid-holocene in PMIP2. Climate Dynamics, 2013, 40, 1291-1299.	3.8	5
121	Southward displacement of the upper atmosphere zonal jet in the eastern north Pacific due to global warming. Geophysical Research Letters, 2014, 41, 7861-7867.	4.0	5
122	Changes in ENSO Activity During the Last 6,000ÂYears Modulated by Background Climate State. Geophysical Research Letters, 2018, 45, 2467-2475.	4.0	5
123	Decadal phase shift of summertime Arctic dipole pattern and its nonlinear effect on sea ice extent. International Journal of Climatology, 2021, 41, 4732-4742.	3.5	5
124	Quantifying the residual effects of ENSO on lowâ€frequency variability in the tropical Pacific. International Journal of Climatology, 2013, 33, 1047-1052.	3.5	4
125	Origin of earlyâ€spring central Pacific warming as the 1982â€“1983 El NiÃ±o precursor. International Journal of Climatology, 2018, 38, 2899-2906.	3.5	4
126	Impact of Pacific Decadal Oscillation on Frequency Asymmetry of El NiÃ±o and La NiÃ±a Events. Advances in Atmospheric Sciences, 2018, 35, 493-494.	4.3	4

#	Article	IF	Citations
127	Interdecadal Change in the Relationship Between the North Pacific Oscillation and the Pacific Meridional Mode and Its Impact on ENSO. Asia-Pacific Journal of Atmospheric Sciences, 2018, 54, 63-76.	2.3	4
128	A low order dynamical model for runoff predictability. Climate Dynamics, 2021, 56, 399-422.	3.8	4
129	A novel approach for discovering stochastic models behind data applied to El NiÃ±oâ€“Southern Oscillation. Scientific Reports, 2021, 11, 2648.	3.3	4
130	Seasonal Gap Theory for ENSO Phase Locking. Journal of Climate, 2021, , 1-44.	3.2	4
131	Interaction between equatorially symmetric and asymmetric tropical eastern Pacific SSTs. Theoretical and Applied Climatology, 2010, 102, 151-158.	2.8	3
132	Impact of freshwater discharge from the Greenland ice sheet on North Atlantic climate variability. Theoretical and Applied Climatology, 2013, 112, 29-43.	2.8	3
133	Accounting for skill in trend, variability, and autocorrelation facilitates better multi-model projections: Application to the AMOC and temperature time series. PLoS ONE, 2019, 14, e0214535.	2.5	3
134	General circulation and global heat transport in a quadrupling CO2 pulse experiment. Scientific Reports, 2022, 12, .	3.3	3
135	Sensitivity of the equatorial airâ€"sea coupled system to the zonal phase difference between SST and wind stress. Advances in Atmospheric Sciences, 2001, 18, 155-165.	4.3	2
136	Impact of North Atlantic Freshwater Forcing on the Pacific Meridional Overturning Circulation under Glacial and Interglacial Conditions. Journal of Climate, 2019, 32, 4641-4659.	3.2	2
137	Teleconnections in the Atmosphere. , 2020, , 54-88.		2
138	Slow and soft passage through tipping point of the Atlantic Meridional Overturning Circulation in a changing climate. Npj Climate and Atmospheric Science, 2022, 5, .	6.8	2
139	Influence of retreating Barentsâ€"Kara sea ice on the periodicity of El <scp>NiÃ±oâ€"Southern</scp> Oscillation. International Journal of Climatology, 0, , .	3.5	2
140	Internal Climate Variability in the Present Climate and the Change in ENSO Amplitude in Future Climate Simulations. Frontiers in Climate, 0, 4, .	2.8	2
141	Impacts of ocean gateway and basin width on Tertiary tropical climate variability in a prototype model. Theoretical and Applied Climatology, 2012, 107, 155-164.	2.8	1
142	Improved probabilistic twenty-first century projections of sea surface temperature over East Asian marginal seas by considering uncertainty owing to model error and internal variability. Climate Dynamics, 2019, 53, 6075-6087.	3.8	1
143	A flexible data-driven cyclostationary model for the probability density of El NiÃ±oâ€"Southern Oscillation. Chaos, 2021, 31, 103126.	2.5	1
144	Atmosphere-driven cold SST biases over the western North Pacific in the GloSea5 seasonal forecast system. Climate Dynamics, 2022, 59, 2571-2584.	3.8	1

#	Article	IF	Citations
145	Robust oppositeâ€changing tendency between the thermal advection damping by mean current and thermoâ€dynamical damping of ENSO Feedback in a changing climate. International Journal of Climatology, 2019, 39, 5822-5829.	3.5	0