Zhauhua Wu

List of Publications by Year
in descending order

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Version: 2024-02-01

72 papers	13,940 citations	136740 32 h-index	95083 68 g-index
74 all docs	74 docs citations	74 times ranked	10498 citing authors

#	Article	IF	Citations
1	ENSEMBLE EMPIRICAL MODE DECOMPOSITION: A NOISE-ASSISTED DATA ANALYSIS METHOD. Advances in Adaptive Data Analysis, 2009, 01, 1-41.	0.6	6,205
2	A study of the characteristics of white noise using the empirical mode decomposition method. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 1597-1611.	1.0	1,384
3	A review on Hilbertâ€Huang transform: Method and its applications to geophysical studies. Reviews of Geophysics, 2008, 46, .	9.0	1,355
4	On the trend, detrending, and variability of nonlinear and nonstationary time series. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14889-14894.	3.3	729
5	ON INSTANTANEOUS FREQUENCY. Advances in Adaptive Data Analysis, 2009, 01, 177-229.	0.6	520
6	Evolution of land surface air temperature trend. Nature Climate Change, 2014, 4, 462-466.	8.1	456
7	Empirical Mode Decomposition-Based Time-Frequency Analysis of Multivariate Signals: The Power of Adaptive Data Analysis. IEEE Signal Processing Magazine, 2013, 30, 74-86.	4.6	348
8	On the time-varying trend in global-mean surface temperature. Climate Dynamics, 2011, 37, 759.	1.7	342
9	THE MULTI-DIMENSIONAL ENSEMBLE EMPIRICAL MODE DECOMPOSITION METHOD. Advances in Adaptive Data Analysis, 2009, 01, 339-372.	0.6	331
10	Noise and poise: Enhancement of postural complexity in the elderly with a stochastic-resonanceâ€“based therapy. Europhysics Letters, 2007, 77, 68008.	0.7	185
11	Increasing flooding hazard in coastal communities due to rising sea level: Case study of Miami Beach, Florida. Ocean and Coastal Management, 2016, 126, 1-8.	2.0	175
12	ON INTRINSIC MODE FUNCTION. Advances in Adaptive Data Analysis, 2010, 02, 277-293.	0.6	148
13	The modulated annual cycle: an alternative reference frame for climate anomalies. Climate Dynamics, 2008, 31, 823-841.	1.7	140
14	A Shallow CISK, Deep Equilibrium Mechanism for the Interaction between Large-Scale Convection and Large-Scale Circulations in the Tropics. Journals of the Atmospheric Sciences, 2003, 60, 377-392.	0.6	95
15	THE TIME-DEPENDENT INTRINSIC CORRELATION BASED ON THE EMPIRICAL MODE DECOMPOSITION. Advances in Adaptive Data Analysis, 2010, 02, 233-265.	0.6	90
16	ON THE FILTERING PROPERTIES OF THE EMPIRICAL MODE DECOMPOSITION. Advances in Adaptive Data Analysis, 2010, 02, 397-414.	0.6	86
17	On Holo-Hilbert spectral analysis: a full informational spectral representation for nonlinear and non-stationary data. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150206.	1.6	75
18	Changes in the Amplitude of the Temperature Annual Cycle in China and Their Implication for Climate Change Research. Journal of Climate, 2011, 24, 5292-5302.	1.2	67

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19	On Changing El NiÃ±o: A View from Time-Varying Annual Cycle, Interannual Variability, and Mean State. Journal of Climate, 2011, 24, 6486-6500.	1.2	65
20	ON HILBERT SPECTRAL REPRESENTATION: A TRUE TIME-FREQUENCY REPRESENTATION FOR NONLINEAR AND NONSTATIONARY DATA. Advances in Adaptive Data Analysis, 2011, 03, 63-93.	0.6	60
21	Connection of stratospheric QBO with global atmospheric general circulation and tropical SST. Part I: methodology and composite life cycle. Climate Dynamics, 2012, 38, 1-23.	1.7	60
22	Vertical Structure of Convective Heating and the Three-Dimensional Structure of the Forced Circulation on an Equatorial Beta Plane*. Journals of the Atmospheric Sciences, 2000, 57, 2169-2187.	0.6	58
23	On the secular change of spring onset at Stockholm. Geophysical Research Letters, 2009, 36, .	1.5	58
24	STATISTICAL SIGNIFICANCE TEST OF INTRINSIC MODE FUNCTIONS. Interdisciplinary Mathematical Sciences, 2005, , 107-127.	0.4	51
25	The intensification and shift of the annual North Atlantic Oscillation in a global warming scenario simulation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2004, 56, 112-124.	0.8	49
26	The role of changes in the annual cycle in earlier onset of climatic spring in northern China. Advances in Atmospheric Sciences, 2011, 28, 284-296.	1.9	45
27	Altered phase interactions between spontaneous blood pressure and flow fluctuations in type 2 diabetes mellitus: Nonlinear assessment of cerebral autoregulation. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 2279-2292.	1.2	44
28	Trends in temperature extremes in association with weather-intraseasonal fluctuations in eastern China. Advances in Atmospheric Sciences, 2011, 28, 297-309.	1.9	44
29	On multi-timescale variability of temperature in China in modulated annual cycle reference frame. Advances in Atmospheric Sciences, 2010, 27, 1169-1182.	1.9	43
30	Spatiotemporal variability of NO₂ and PM_{2.5} over Eastern China: observational and model analyses with a novel statistical method. Atmospheric Chemistry and Physics, 2018, 18, 12933-12952.	1.9	42
31	A VARIANT OF THE EMD METHOD FOR MULTI-SCALE DATA. Advances in Adaptive Data Analysis, 2009, 01, 483-516.	0.6	40
32	Changing rapid weather variability increases influenza epidemic risk in a warming climate. Environmental Research Letters, 2020, 15, 044004.	2.2	40
33	Thermally Driven Tropical Circulations under Rayleigh Friction and Newtonian Cooling: Analytic Solutions*. Journals of the Atmospheric Sciences, 2001, 58, 724-741.	0.6	33
34	Use of Nakagami Statistics and Empirical Mode Decomposition for Ultrasound Tissue Characterization by a Nonfocused Transducer. Ultrasound in Medicine and Biology, 2009, 35, 2055-2068.	0.7	29
35	ENSO and Southeast Asian biomass burning modulate subtropical trans-Pacific ozone transport. National Science Review, 2021, 8, nwaa132.	4.6	28
36	Rayleigh Friction, Newtonian Cooling, and the Linear Response to Steady Tropical Heating*. Journals of the Atmospheric Sciences, 2000, 57, 1937-1957.	0.6	27

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37	Fast Multidimensional Ensemble Empirical Mode Decomposition Using a Data Compression Technique. Journal of Climate, 2014, 27, 3492-3504.	1.2	23
38	Fast multidimensional ensemble empirical mode decomposition for the analysis of big spatio-temporal datasets. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150197.	1.6	23
39	Connection of the stratospheric QBO with global atmospheric general circulation and tropical SST. Part II: interdecadal variations. Climate Dynamics, 2012, 38, 25-43.	1.7	22
40	REDUCTIONS OF NOISE AND UNCERTAINTY IN ANNUAL GLOBAL SURFACE TEMPERATURE ANOMALY DATA. Advances in Adaptive Data Analysis, 2009, 01, 447-460.	0.6	21
41	SOME CONSIDERATIONS ON PHYSICAL ANALYSIS OF DATA. Advances in Adaptive Data Analysis, 2011, 03, 95-113.	0.6	21
42	Thermally Forced Surface Winds on an Equatorial Beta Plane*. Journals of the Atmospheric Sciences, 1999, 56, 2029-2037.	0.6	19
43	Projection of global mean surface air temperature changes in next 40 years: Uncertainties of climate models and an alternative approach. Science China Earth Sciences, 2011, 54, 1400-1406.	2.3	19
44	The Role of Ocean Dynamics in the Interaction between the Atlantic Meridional and Equatorial Modes. Journal of Climate, 2012, 25, 3583-3598.	1.2	19
45	Causes of low frequency North Atlantic SST variability in a coupled GCM. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	17
46	Influences of tropicalâ€“extratropical interaction on the multidecadal AMOC variability in the NCEP climate forecast system. Climate Dynamics, 2012, 39, 531-555.	1.7	17
47	Intercomparison between observed and simulated variability in global ocean heat content using empirical mode decomposition, part I: modulated annual cycle. Climate Dynamics, 2013, 41, 2797-2815.	1.7	17
48	Sea Surface Temperature Anomalies off Baja California: A Possible Precursor of ENSO. Journals of the Atmospheric Sciences, 2014, 71, 1529-1537.	0.6	17
49	Detecting Signals from Data with Noise: Theory and Applications. Journals of the Atmospheric Sciences, 2013, 70, 1489-1504.	0.6	16
50	Seasonal to decadal spatiotemporal variations of the global ocean carbon sink. Global Change Biology, 2022, 28, 1786-1797.	4.2	16
51	HHT ANALYSIS OF THE NONLINEAR AND NON-STATIONARY ANNUAL CYCLE OF DAILY SURFACE AIR TEMPERATURE DATA. Interdisciplinary Mathematical Sciences, 2005, , 187-209.	0.4	15
52	Spatiotemporal evolution of the chlorophyll a trend in the North Atlantic Ocean. Science of the Total Environment, 2018, 612, 1141-1148.	3.9	12
53	Increase of Atmospheric Methane Observed from Space-Borne and Ground-Based Measurements. Remote Sensing, 2019, 11, 964.	1.8	12
54	Understanding Long-Term Variations in Surface Ozone in United States (U.S.) National Parks. Atmosphere, 2018, 9, 125.	1.0	11

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55	Delineation of thermodynamic and dynamic responses to sea surface temperature forcing associated with El NiÃ±o. Climate Dynamics, 2018, 51, 4329-4344.	1.7	9
56	Deep Atlantic Ocean Warming Facilitated by the Deep Western Boundary Current and Equatorial Kelvin Waves. Journal of Climate, 2018, 31, 8541-8555.	1.2	9
57	Ozone Trends during 1979â€“2019 over Tibetan Plateau Derived from Satellite Observations. Frontiers in Earth Science, 2020, 8, .	0.8	8
58	THE UNIQUENESS OF THE INSTANTANEOUS FREQUENCY BASED ON INTRINSIC MODE FUNCTION. Advances in Adaptive Data Analysis, 2013, 05, 1350011.	0.6	7
59	Using Holo-Hilbert spectral analysis to quantify the modulation of Dansgaard-Oeschger events by obliquity. Quaternary Science Reviews, 2018, 192, 282-299.	1.4	7
60	Enhanced Feedback between Shallow Convection and Low-Level Moisture Convergence Leads to Improved Simulation of MJO Eastward Propagation. Journal of Climate, 2022, 35, 591-615.	1.2	6
61	The Completeness of Eigenfunctions of the Tidal Equation on an Equatorial Beta Plane*. Journals of the Atmospheric Sciences, 2004, 61, 769-774.	0.6	5
62	MODEL VALIDATION BASED ON ENSEMBLE EMPIRICAL MODE DECOMPOSITION. Advances in Adaptive Data Analysis, 2010, 02, 415-428.	0.6	5
63	STATISTICAL SIGNIFICANCE TEST OF INTRINSIC MODE FUNCTIONS. Interdisciplinary Mathematical Sciences, 2014, , 149-169.	0.4	5
64	Noninstantaneous Wave-CISK for the Interaction between Convective Heating and Low-Level Moisture Convergence in the Tropics. Journals of the Atmospheric Sciences, 2019, 76, 2083-2101.	0.6	5
65	Isolating spatiotemporally local mixed Rossby-gravity waves using multi-dimensional ensemble empirical mode decomposition. Climate Dynamics, 2020, 54, 1383-1405.	1.7	3
66	On the physical origin of the semiannual component of surface air temperature over oceans. Climate Dynamics, 2022, 59, 2137-2149.	1.7	2
67	Spatiotemporal propagating decadal signal of ocean heat content and thermocline depth identified in the tropical Pacific. Science of the Total Environment, 2022, 838, 155972.	3.9	2
68	Moisture Modes of Tropical Intraseasonal Oscillationsâ€”High Order and Antiâ€Symmetric Solutions. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	1
69	ENSEMBLE EMPIRICAL MODE DECOMPOSITION AND ITS MULTI-DIMENSIONAL EXTENSIONS. Interdisciplinary Mathematical Sciences, 2014, , 27-46.	0.4	0
70	Reply to 'Spatiotemporal patterns of warming'. Nature Climate Change, 2014, 4, 846-848.	8.1	0
71	Data concerning statistical relation between obliquity and Dansgaardâ€“Oeschger events. Data in Brief, 2019, 23, 103727.	0.5	0
72	Convective Response in a Cloud-permitting Simulation of the MJO:ÂTime Scales and Processes. Journals of the Atmospheric Sciences, 2022, , .	0.6	0