

# Kun Hu

## List of Publications by Year in descending order

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85  
papers

6,095  
citations

147566

31  
h-index

79541

73  
g-index

85  
all docs

85  
docs citations

85  
times ranked

5999  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of trends on detrended fluctuation analysis. <i>Physical Review E</i> , 2001, 64, 011114.	0.8	1,070
2	Effect of nonstationarities on detrended fluctuation analysis. <i>Physical Review E</i> , 2002, 65, 041107.	0.8	792
3	Circadian misalignment increases cardiovascular disease risk factors in humans. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E1402-11.	3.3	431
4	Association between circadian rhythms and neurodegenerative diseases. <i>Lancet Neurology</i> , The, 2019, 18, 307-318.	4.9	384
5	On the computational complexity of the empirical mode decomposition algorithm. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 400, 159-167.	1.2	318
6	Impact of the human circadian system, exercise, and their interaction on cardiovascular function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 20541-20546.	3.3	245
7	Gut microbiota is critical for the induction of chemotherapy-induced pain. <i>Nature Neuroscience</i> , 2017, 20, 1213-1216.	7.1	194
8	Foot pressure distribution during walking in young and old adults. <i>BMC Geriatrics</i> , 2005, 5, 8.	1.1	175
9	Suprachiasmatic neuron numbers and rest-activity circadian rhythms in older humans. <i>Annals of Neurology</i> , 2015, 78, 317-322.	2.8	171
10	Reduction of scale invariance of activity fluctuations with aging and Alzheimer's disease: Involvement of the circadian pacemaker. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 2490-2494.	3.3	152
11	Existence of an Endogenous Circadian Blood Pressure Rhythm in Humans That Peaks in the Evening. <i>Circulation Research</i> , 2011, 108, 980-984.	2.0	150
12	Non-random fluctuations and multi-scale dynamics regulation of human activity. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 337, 307-318.	1.2	146
13	Circadian Misalignment Increases C-Reactive Protein and Blood Pressure in Chronic Shift Workers. <i>Journal of Biological Rhythms</i> , 2017, 32, 154-164.	1.4	133
14	Endogenous circadian rhythm in an index of cardiac vulnerability independent of changes in behavior. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 18223-18227.	3.3	132
15	Multiscale aspects of cardiac control. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 344, 685-704.	1.2	89
16	Circadian disturbances in Alzheimer's disease progression: a prospective observational cohort study of community-based older adults. <i>The Lancet Healthy Longevity</i> , 2020, 1, e96-e105.	2.0	77
17	Endogenous Circadian Rhythm in Vasovagal Response to Head-Up Tilt. <i>Circulation</i> , 2011, 123, 961-970.	1.6	74
18	Nonlinear Assessment of Cerebral Autoregulation from Spontaneous Blood Pressure and Cerebral Blood Flow Fluctuations. <i>Cardiovascular Engineering (Dordrecht, Netherlands)</i> , 2008, 8, 60-71.	1.0	73

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19	Nonlinear phase interaction between nonstationary signals: A comparison study of methods based on Hilbert-Huang and Fourier transforms. <i>Physical Review E</i> , 2009, 79, 061924.	0.8	57
20	Cross-correlation of instantaneous phase increments in pressure-flow fluctuations: Applications to cerebral autoregulation. <i>Physical Review E</i> , 2006, 73, 031915.	0.8	55
21	Spurious detection of phase synchronization in coupled nonlinear oscillators. <i>Physical Review E</i> , 2006, 73, 065201.	0.8	52
22	The role of the circadian system in fractal neurophysiological control. <i>Biological Reviews</i> , 2013, 88, 873-894.	4.7	51
23	Noninvasive fractal biomarker of clock neurotransmitter disturbance in humans with dementia. <i>Scientific Reports</i> , 2013, 3, 2229.	1.6	51
24	Lack of exercise leads to significant and reversible loss of scale invariance in both aged and young mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 2320-2324.	3.3	49
25	Altered phase interactions between spontaneous blood pressure and flow fluctuations in type 2 diabetes mellitus: Nonlinear assessment of cerebral autoregulation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2008, 387, 2279-2292.	1.2	44
26	Detecting phase-amplitude coupling with high frequency resolution using adaptive decompositions. <i>Journal of Neuroscience Methods</i> , 2014, 226, 15-32.	1.3	43
27	Progression of Dementia Assessed by Temporal Correlations of Physical Activity: Results From a 3.5-Year, Longitudinal Randomized Controlled Trial. <i>Scientific Reports</i> , 2016, 6, 27742.	1.6	41
28	Uniform Phase Empirical Mode Decomposition: An Optimal Hybridization of Masking Signal and Ensemble Approaches. <i>IEEE Access</i> , 2018, 6, 34819-34833.	2.6	41
29	Fractal Patterns of Neural Activity Exist within the Suprachiasmatic Nucleus and Require Extrinsic Network Interactions. <i>PLoS ONE</i> , 2012, 7, e48927.	1.1	39
30	Multimodal Pressure-Flow Analysis: Application of Hilbert Huang Transform in Cerebral Blood Flow Regulation. <i>Eurasip Journal on Advances in Signal Processing</i> , 2008, 2008, 785243.	1.0	38
31	Daytime napping and Alzheimer's dementia: A potential bidirectional relationship. <i>Alzheimer's and Dementia</i> , 2023, 19, 158-168.	0.4	37
32	Spurious cross-frequency amplitude-amplitude coupling in nonstationary, nonlinear signals. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 454, 143-150.	1.2	36
33	Fractal regulation and incident Alzheimer's disease in elderly individuals. <i>Alzheimer's and Dementia</i> , 2018, 14, 1114-1125.	0.4	36
34	More random motor activity fluctuations predict incident frailty, disability, and mortality. <i>Science Translational Medicine</i> , 2019, 11, .	5.8	33
35	Cardiolocomotor Coupling in Young and Elderly People. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2007, 62, 86-92.	1.7	32
36	Circadian Rest-Activity Rhythms Predict Cognitive Function in Early Parkinson's Disease Independently of Sleep. <i>Movement Disorders Clinical Practice</i> , 2018, 5, 614-619.	0.8	32

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37	The circadian pacemaker generates similar circadian rhythms in the fractal structure of heart rate in humans and rats. <i>Cardiovascular Research</i> , 2008, 80, 62-68.	1.8	31
38	A Nonlinear Dynamic Approach Reveals a Long-Term Stroke Effect on Cerebral Blood Flow Regulation at Multiple Time Scales. <i>PLoS Computational Biology</i> , 2012, 8, e1002601.	1.5	31
39	The Endogenous Circadian Pacemaker Imparts a Scale-Invariant Pattern of Heart Rate Fluctuations across Time Scales Spanning Minutes to 24 Hours. <i>Journal of Biological Rhythms</i> , 2008, 23, 265-273.	1.4	30
40	Association of Objectively Measured Timing of Physical Activity Bouts With Cardiovascular Health in Type 2 Diabetes. <i>Diabetes Care</i> , 2021, 44, 1046-1054.	4.3	30
41	Poor sleep behavior burden and risk of COVID-19 mortality and hospitalization. <i>Sleep</i> , 2021, 44, .	0.6	25
42	Interaction between the progression of Alzheimer's disease and fractal degradation. <i>Neurobiology of Aging</i> , 2019, 83, 21-30.	1.5	22
43	Nonlinear Pressure-Flow Relationship Is Able to Detect Asymmetry of Brain Blood Circulation Associated with Midline Shift. <i>Journal of Neurotrauma</i> , 2009, 26, 227-233.	1.7	21
44	Simulated shift work in rats perturbs multiscale regulation of locomotor activity. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140318.	1.5	21
45	Outlier-resilient complexity analysis of heartbeat dynamics. <i>Scientific Reports</i> , 2015, 5, 8836.	1.6	20
46	Association of Poor Sleep Burden in Middle Age and Older Adults With Risk for Delirium During Hospitalization. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2022, 77, 507-516.	1.7	20
47	Posturo-respiratory synchronization: Effects of aging and stroke. <i>Gait and Posture</i> , 2012, 36, 254-259.	0.6	19
48	Reduced Tolerance to Night Shift in Chronic Shift Workers: Insight From Fractal Regulation. <i>Sleep</i> , 2017, 40, .	0.6	19
49	Subunit-specific NMDAR antagonism dissociates schizophrenia subtype-relevant oscillopathies associated with frontal hypofunction and hippocampal hyperfunction. <i>Scientific Reports</i> , 2018, 8, 11588.	1.6	19
50	The circadian system modulates the rate of recovery of systolic blood pressure after exercise in humans. <i>Sleep</i> , 2020, 43, .	0.6	17
51	Nocturnal heart rate variability moderates the association between sleep-wake regularity and mood in young adults. <i>Sleep</i> , 2019, 42, .	0.6	15
52	Tai Chi training reduced coupling between respiration and postural control. <i>Neuroscience Letters</i> , 2016, 610, 60-65.	1.0	14
53	Effects of obstructive sleep apnea on endogenous circadian rhythms assessed during relaxed wakefulness; an exploratory analysis. <i>Chronobiology International</i> , 2020, 37, 856-866.	0.9	13
54	<p>&lt;p>Fragmentation of Rest/Activity Patterns in Community-Based Elderly Individuals Predicts Incident Heart Failure</p>&lt;/p>. <i>Nature and Science of Sleep</i> , 2020, Volume 12, 299-307.	1.4	13

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55	Interactive Effects of Dorsomedial Hypothalamic Nucleus and Time-Restricted Feeding on Fractal Motor Activity Regulation. <i>Frontiers in Physiology</i> , 2016, 7, 174.	1.3	12
56	A Minimum Arclength Method for Removing Spikes in Empirical Mode Decomposition. <i>IEEE Access</i> , 2019, 7, 13284-13294.	2.6	12
57	Impact of mental stress, the circadian system and their interaction on human cardiovascular function. <i>Psychoneuroendocrinology</i> , 2019, 103, 125-129.	1.3	12
58	Circadian Rhythms in Hormone-sensitive Lipase in Human Adipose Tissue: Relationship to Meal Timing and Fasting Duration. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2020, 105, e4407-e4416.	1.8	12
59	Fractal motor activity regulation and sex differences in preclinical Alzheimer's disease pathology. <i>Alzheimer's and Dementia: Diagnosis, Assessment and Disease Monitoring</i> , 2021, 13, e12211.	1.2	12
60	Objective Assessment of Daytime Napping and Incident Heart Failure in 1140 Community-Dwelling Older Adults: A Prospective, Observational Cohort Study. <i>Journal of the American Heart Association</i> , 2021, 10, e019037.	1.6	12
61	Daytime Sleep Behaviors and Cognitive Performance in Middle- to Older-Aged Adults Living with and without HIV Infection. <i>Nature and Science of Sleep</i> , 2022, Volume 14, 181-191.	1.4	10
62	Novel application of a Wii remote to measure spasticity with the pendulum test: Proof of concept. <i>Gait and Posture</i> , 2016, 43, 70-75.	0.6	9
63	Resting Heartbeat Complexity Predicts All-Cause and Cardiorespiratory Mortality in Middle-to Older-Aged Adults From the UK Biobank. <i>Journal of the American Heart Association</i> , 2021, 10, e018483.	1.6	9
64	Fractal biomarker of activity in patients with bipolar disorder. <i>Psychological Medicine</i> , 2021, 51, 1562-1569.	2.7	8
65	Sleep, rest-activity rhythms and aging: a complex web in Alzheimer's disease?. <i>Neurobiology of Aging</i> , 2021, 104, 102-103.	1.5	7
66	Unanticipated daytime melatonin secretion on a simulated night shift schedule generates a distinctive 24-h melatonin rhythm with antiphase daytime and nighttime peaks. <i>Journal of Pineal Research</i> , 2022, 72, .	3.4	5
67	0301 Interaction Between the Progression of Alzheimer's Dementia and Circadian Disturbances: A 13-Year Longitudinal Study in Community-Based Older Adults. <i>Sleep</i> , 2019, 42, A123-A123.	0.6	4
68	Fractal Regulation in Temporal Activity Fluctuations: A Biomarker for Circadian Control and Beyond. , 2017, 3, .		4
69	Heart rate response and recovery during exercise predict future delirium risk? A prospective cohort study in middle- to older-aged adults. <i>Journal of Sport and Health Science</i> , 2021, , .	3.3	4
70	Sleep disturbance and incident Alzheimer's disease: A UK Biobank study of 502,538 middle-aged to older participants. <i>Alzheimer's and Dementia</i> , 2020, 16, e044575.	0.4	3
71	Daily Rhythm of Fractal Cardiac Dynamics Links to Weight Loss Resistance: Interaction with CLOCK 3111T/C Genetic Variant. <i>Nutrients</i> , 2021, 13, 2463.	1.7	2
72	Probing the Fractal Pattern of Heartbeats in <i>Drosophila</i> Pupae by Visible Optical Recording System. <i>Scientific Reports</i> , 2016, 6, 31950.	1.6	1

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73	0037 Degraded Circadian Regulation Predicts Incident Physical Disability and All-Cause Mortality in Community-Based Older Adults. <i>Sleep</i> , 2019, 42, A15-A15.	0.6	1
74	Daytime napping trajectory over time and its association with cognitive aging: A 13-year community-based longitudinal study of older adults. <i>Alzheimer's and Dementia</i> , 2020, 16, e045248.	0.4	1
75	699 Sleep Health Traits and COVID-19: Mortality Risk from the UK Biobank. <i>Sleep</i> , 2021, 44, A273-A273.	0.6	1
76	547 Earlier-life sleep patterns and risk for delirium in elderly hospitalized patients from a 14-year longitudinal cohort. <i>Sleep</i> , 2021, 44, A215-A216.	0.6	1
77	0902 Nocturnal Heart Rate Variability Moderates the Association Between Sleep-Wake Regularity and Mood in Young Adults. <i>Sleep</i> , 2019, 42, A362-A363.	0.6	0
78	0305 Degraded Fractal Activity Regulation and Incident Parkinsonism in Community-Based Older Adults. <i>Sleep</i> , 2019, 42, A124-A126.	0.6	0
79	0283 Sleep Fragmentation Predicts Risk of Congestive Heart Failure in Community-Based Older Adults. <i>Sleep</i> , 2019, 42, A115-A115.	0.6	0
80	Longer and more frequent naps predict incident Alzheimer's dementia in community-based older adults. <i>Alzheimer's and Dementia</i> , 2020, 16, e045269.	0.4	0
81	246 Maintenance of Circadian/Daily Activity Patterns and Cognitive Resilience to Alzheimer's Pathology in Late Life. <i>Sleep</i> , 2021, 44, A99-A100.	0.6	0
82	758 Circadian rest-activity signatures in women with major depressive disorder. <i>Sleep</i> , 2021, 44, A295-A296.	0.6	0
83	0277 Deep learning revealed associations between altered temporal correlations in motor activity and Parkinson's risk. <i>Sleep</i> , 2022, 45, A124-A125.	0.6	0
84	0195 Integrated actigraphy-based biomarker for the risk of Alzheimer's dementia. <i>Sleep</i> , 2022, 45, A89-A89.	0.6	0
85	0132 Loss of Neurons in the Intermediate Nucleus is Related to Perturbed Sleep-Wake Rhythms in Older Adults. <i>Sleep</i> , 2022, 45, A59-A59.	0.6	0