Houguang Liu

List of Publications by Year
in descending order

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83	1,213	430442	433756
papers	citations	18 h-index	31 g-index

91	91	91	801
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Research of weak fault feature information extraction of planetary gear based on ensemble empirical mode decomposition and adaptive stochastic resonance. Measurement: Journal of the International Measurement Confederation, 2015, 73, 55-67.	2.5	118
2	Study on planetary gear fault diagnosis based on entropy feature fusion of ensemble empirical mode decomposition. Measurement: Journal of the International Measurement Confederation, 2016, 91, 140-154.	2.5	96
3	Improving the bearing fault diagnosis efficiency by the adaptive stochastic resonance in a new nonlinear system. Mechanical Systems and Signal Processing, 2017, 96, 58-76.	4.4	80
4	Stochastic P-bifurcation and stochastic resonance in a noisy bistable fractional-order system. Communications in Nonlinear Science and Numerical Simulation, 2016, 41, 104-117.	1.7	76
5	Detecting the weak high-frequency character signal by vibrational resonance in the Duffing oscillator. Nonlinear Dynamics, 2017, 89, 2621-2628.	2.7	46
6	A new method of gear fault diagnosis in strong noise based on multi-sensor information fusion. JVC/Journal of Vibration and Control, 2016, 22, 1504-1515.	1.5	41
7	Optimal IMF selection and unknown fault feature extraction for rolling bearings with different defect modes. Measurement: Journal of the International Measurement Confederation, 2020, 157, 107660.	2.5	35
8	Vibrational subharmonic and superharmonic resonances. Communications in Nonlinear Science and Numerical Simulation, 2016, 30, 362-372.	1.7	32
9	An improved adaptive stochastic resonance method for improving the efficiency of bearing faults diagnosis. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 2352-2368.	1.1	31
10	Recovering an unknown signal completely submerged in strong noise by a new stochastic resonance method. Communications in Nonlinear Science and Numerical Simulation, 2019, 66, 156-166.	1.7	31
11	Stiffness analysis of a 3CPS parallel manipulator for mirror active adjusting platform in segmented telescope. Robotics and Computer-Integrated Manufacturing, 2013, 29, 302-311.	6.1	30
12	Extraction and enhancement of unknown bearing fault feature in the strong noise under variable speed condition. Measurement Science and Technology, 2021, 32, 105021.	1.4	24
13	Optimizing the Adaptive Stochastic Resonance and Its Application in Fault Diagnosis. Fluctuation and Noise Letters, 2015, 14, 1550038.	1.0	23
14	Experimental application of vibrational resonance on bearing fault diagnosis. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2019, 41, 1.	0.8	23
15	Bifurcation and resonance in a fractional Mathieu-Duffing oscillator. European Physical Journal B, 2015, 88, 1.	0.6	22
16	Realizing the empirical mode decomposition by the adaptive stochastic resonance in a new periodical model and its application in bearing fault diagnosis. Journal of Mechanical Science and Technology, 2017, 31, 4599-4610.	0.7	22
17	On bearing fault diagnosis by nonlinear system resonance. Nonlinear Dynamics, 2019, 98, 2035-2052.	2.7	22
18	Noise-induced resonance at the subharmonic frequency in bistable systems. Nonlinear Dynamics, 2017, 87, 1721-1730.	2.7	21

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19	Logical stochastic resonance in a nonlinear fractional-order system. European Physical Journal Plus, 2020, 135, 1.	1.2	18
20	Enhancing the Weak Signal With Arbitrary High-Frequency by Vibrational Resonance in Fractional-Order Duffing Oscillators. Journal of Computational and Nonlinear Dynamics, 2017, 12, .	0.7	17
21	An improved adaptive stochastic resonance with general scale transformation to extract high-frequency characteristics in strong noise. International Journal of Modern Physics B, 2018, 32, 1850185.	1.0	17
22	Unknown bearing fault diagnosis under time-varying speed conditions and strong noise background. Nonlinear Dynamics, 2022, 107, 2177-2193.	2.7	17
23	Concept and Evaluation of a New Piezoelectric Transducer for an Implantable Middle Ear Hearing Device. Sensors, 2017, 17, 2515.	2.1	16
24	Time-frequency analysis of a new aperiodic resonance. Communications in Nonlinear Science and Numerical Simulation, 2020, 85, 105258.	1.7	15
25	An integrated cultural particle swarm algorithm for multi-objective reliability-based design optimization. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2014, 228, 1185-1196.	1.1	13
26	Signal generation and enhancement in a delayed system. Communications in Nonlinear Science and Numerical Simulation, 2015, 22, 1158-1168.	1.7	13
27	A Feature Extraction Method Using Auditory Nerve Response for Collapsing Coal-Gangue Recognition. Applied Sciences (Switzerland), 2020, 10, 7471.	1.3	13
28	Bifurcation Transition and Nonlinear Response in a Fractional-Order System. Journal of Computational and Nonlinear Dynamics, 2015, 10, .	0.7	12
29	Study of age-related changes in Middle ear transfer function. Computer Methods in Biomechanics and Biomedical Engineering, 2019, 22, 1093-1102.	0.9	12
30	Non-stationary feature extraction by the stochastic response of coupled oscillators and its application in bearing fault diagnosis under variable speed condition. Nonlinear Dynamics, 2022, 108, 3839-3857.	2.7	12
31	Fault diagnosis of gearbox based on local mean decomposition and discrete hidden Markov models. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2017, 231, 2706-2717.	1.1	11
32	Influence of ossicular chain malformation on the performance of round-window stimulation: A finite element approach. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2019, 233, 584-594.	1.0	11
33	Objective sound quality evaluation for the vehicle interior noise based on responses of the basilar membrane in the human ear. Applied Acoustics, 2021, 172, 107619.	1.7	11
34	Improving the weak feature extraction by adaptive stochastic resonance in cascaded piecewise-linear system and its application in bearing fault detection. Journal of Vibroengineering, 2017, 19, 2506-2520.	0.5	11
35	Stochastic resonance in overdamped systems with fractional power nonlinearity. European Physical Journal Plus, 2017, 132, 1.	1.2	10
36	Vibrational Resonance in an Overdamped System with a Fractional Order Potential Nonlinearity. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2018, 28, 1850082.	0.7	10

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37	Weak signal enhancement by fractional-order system resonance and its application in bearing fault diagnosis. Measurement Science and Technology, 2019, 30, 035004.	1.4	10
38	Effect of stimulation sites on the performance of electromagnetic middle ear implant: A finite element analysis. Computers in Biology and Medicine, 2020, 124, 103918.	3.9	10
39	The role of third windows on human sound transmission of forward and reverse stimulations: A lumped-parameter approach. Journal of the Acoustical Society of America, 2020, 147, 1478-1490.	0.5	10
40	Coal gangue recognition using multichannel auditory spectrogram of hydraulic support sound in convolutional neural network. Measurement Science and Technology, 2022, 33, 015107.	1.4	10
41	Adaptive denoising for strong noisy images by using positive effects of noise. European Physical Journal Plus, 2021, 136, 1.	1.2	9
42	Transducer Type and Design Influence on the Hearing Loss Compensation Behaviour of the Electromagnetic Middle Ear Implant in a Finite Element Analysis. Advances in Mechanical Engineering, 2014, 6, 867108.	0.8	9
43	Finite element model of human ear reconstruction through micro-computer tomography. Acta Oto-Laryngologica, 2011, 131, 269-276.	0.3	8
44	The effect of actuator and its coupling conditions on eardrum-stimulated middle ear implants: A numerical analysis. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2016, 230, 1074-1085.	1.0	8
45	Improving amplitude-modulated signals by re-scaled and twice sampling vibrational resonance methods. Pramana - Journal of Physics, 2018, 91, 1.	0.9	8
46	Modeling the effect of cochlear windows activity on reverse stimulation under the role of physiological third windows. Applied Acoustics, 2020, 169, 107473.	1.7	8
47	Stochastic resonance induced by an unknown linear frequency modulated signal in a strong noise background. Chaos, 2020, 30, 043128.	1.0	6
48	Improved SNR to detect the unknown characteristic frequency by SR. IET Science, Measurement and Technology, 2018, 12, 795-801.	0.9	6
49	Adaptive Stochastic Resonance for Bolt Looseness Identification Under Strong Noise Background. Journal of Computational and Nonlinear Dynamics, 2022, 17, .	0.7	6
50	A novel adaptive moving average method for signal denoising in strong noise background. European Physical Journal Plus, 2022, 137, 1.	1.2	6
51	Stiffness analysis of the 3SPS+1PS bionic parallel test platform for a hip joint simulator. Robotica, 2013, 31, 935-944.	1.3	5
52	An Incus-Body Driving Type Piezoelectric Middle Ear Implant Design and Evaluation in 3D Computational Model and Temporal Bone. Scientific World Journal, The, 2014, 2014, 1-8.	0.8	5
53	Numerical Study and Optimization of a Novel Piezoelectric Transducer for a Round-Window Stimulating Type Middle-Ear Implant. Micromachines, 2019, 10, 40.	1.4	5
54	Research on coupling effects of actuator and round window membrane on reverse stimulation of human cochlea. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2021, 235, 447-458.	1.0	5

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55	Design and analysis of a flextensional piezoelectric actuator for incus-body driving type middle ear implant. Journal of Vibroengineering, 2017, 19, 3842-3854.	0.5	5
56	The pitchfork bifurcation and vibrational resonance in a quintic oscillator. Wuli Xuebao/Acta Physica Sinica, 2013, 62, 180503.	0.2	5
57	On the Weak Signal Amplification by Twice Sampling Vibrational Resonance Method in Fractional Duffing Oscillators. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	0.7	4
58	The Influence of Piezoelectric Transducer Stimulating Sites on the Performance of Implantable Middle Ear Hearing Devices: A Numerical Analysis. Micromachines, 2019, 10, 782.	1.4	4
59	Influence of Poisson White Noise on the Response Statistics of Nonlinear System and Its Applications to Bearing Fault Diagnosis. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	0.7	4
60	Stochastic Resonance and Self-Induced Stochastic Resonance in Bearing Fault Diagnosis. Fluctuation and Noise Letters, 2021, 20, .	1.0	4
61	Design of Floating Mass Type Piezoelectric Actuator for Implantable Middle Ear Hearing Devices. Chinese Journal of Mechanical Engineering (English Edition), 2009, 22, 221.	1.9	4
62	Analysing Kinematics of a Novel 3CPS Parallel Manipulator Based on Rodrigues Parameters. Strojniski Vestnik/Journal of Mechanical Engineering, 2013, 59, 291-300.	0.6	4
63	THE EFFECT OF IMPLANTABLE TRANSDUCERS ON MIDDLE EAR TRANSFER FUNCTION â€" A COMPARATIVE NUMERICAL ANALYSIS. Journal of Mechanics in Medicine and Biology, 2016, 16, 1650040.	0.3	3
64	Analysis of the influence of the transducer and its coupling layer on round window stimulation. Acta of Bioengineering and Biomechanics, 2017, 19, 103-111.	0.2	3
65	Extracting non-stationary signal under strong noise background: Time-varying system analysis. JVC/Journal of Vibration and Control, 2023, 29, 4036-4045.	1.5	3
66	Finite element analysis of the effects of a floating mass transducer on the performance of a middle ear implant. Journal of Medical Engineering and Technology, 2010, 34, 316-323.	0.8	2
67	Workspace analysis of 3-CPS parallel micro-manipulator for mirror active adjusting platform. Journal of Mechanical Science and Technology, 2013, 27, 3805-3816.	0.7	2
68	Speech enhancement based on noise classification and deep neural network. Modern Physics Letters B, 2019, 33, 1950188.	1.0	2
69	Linear frequency modulated signal induced aperiodic resonance. Physica Scripta, 2020, 95, 065213.	1.2	2
70	A periodic vibrational resonance in the fractional-order bistable system. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 054501.	0.2	2
71	Vibrational resonance by using a real-time scale transformation method. Physica Scripta, 2022, 97, 045207.	1.2	2
72	Different fast excitations on the improvement of stochastic resonance in bounded noise excited system. International Journal of Modern Physics B, 2020, 34, 2050238.	1.0	1

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73	Extracting weak multi-frequency signal in heavy colored noise. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	0.8	1
74	Morphology of human ear canal and its effect on sound transmission. International Journal for Numerical Methods in Biomedical Engineering, 2022, 38, e3567.	1.0	1
75	Influence of middle ear disorder in round-window stimulation using a finite element human ear model. Acta of Bioengineering and Biomechanics, 2019, 21, 3-12.	0.2	1
76	Designing a piezoelectric stack for incus driving actuator using finite element method. , 2010, , .		0
77	Notice of Retraction: Numerical study on the effect of attachment points of middle ear actuator on the movement of the stapes. , 2010, , .		0
78	Wavelet frequency-division based signal processing module design for a new type of middle ear implant. , 2010, , .		0
79	Numerical analysis of the effects of ossicular chain malformations on bone conduction stimulation. Computer Methods in Biomechanics and Biomedical Engineering, 2021, 24, 817-830.	0.9	0
80	Effect of ossicular chain deformity on reverse stimulation considering the overflow characteristics of third windows. Computer Methods in Biomechanics and Biomedical Engineering, 2021, , 1-16.	0.9	0
81	A biomechanical study of the dynamic behavior of the organ of Corti: effect of stimulation type on shear gain. , 2014, , .		0
82	Analysis of design parameters of round-window stimulating type electromagnetic transducer by a nonlinear lumped parameter model of implanted human ear. Mathematical Biosciences and Engineering, 2022, 19, 2453-2470.	1.0	0
83	Effects of design and coupling parameters on the performance of electromagnetic transducers in round-window stimulation. Journal of the Acoustical Society of America, 2022, 151, 609-619.	0.5	0