Cheng-Chi Wang

List of Publications by Year
in descending order

92 papers	1,086 citations	394421 19 h-index	454955 30 g-index
95 all docs	95 docs citations	95 times ranked	624 citing authors

#	ARTICLE	IF	CITATIONS
1	Performance analysis of high-speed spindle aerostatic bearings. Tribology International, 2005, 38, 5-14.	5.9	97
2	Bifurcation Analysis of Self-Acting Gas Journal Bearings. Journal of Tribology, 2001, 123, 755-767.	1.9	58
3	Nonlinear analysis and control of the uncertain micro-electro-mechanical system by using a fuzzy sliding mode control design. Computers and Mathematics With Applications, 2011, 61, 1912-1916.	2.7	55
4	Chaos control in AFM system using sliding mode control by backstepping design. Communications in Nonlinear Science and Numerical Simulation, 2010, 15, 741-751.	3.3	49
5	Application of a hybrid method to the nonlinear dynamic analysis of a flexible rotor supported by a spherical gas-lubricated bearing system. Nonlinear Analysis: Theory, Methods & Applications, 2009, 70, 2035-2053.	1.1	46
6	Nonlinear dynamic analysis and sliding mode control forÂaÂgyroscope system. Nonlinear Dynamics, 2011, 66, 53-65.	5.2	44
7	Bifurcation and nonlinear dynamic analysis of a flexible rotor supported by relative short gas journal bearings. Chaos, Solitons and Fractals, 2007, 32, 566-582.	5.1	38
8	Theoretical analysis of the non-linear behavior of a flexible rotor supported by herringbone grooved gas journal bearings. Tribology International, 2007, 40, 533-541.	5.9	36
9	Theoretical and nonlinear behavior analysis of a flexible rotor supported by a relative short herringbone-grooved gas journal-bearing system. Physica D: Nonlinear Phenomena, 2008, 237, 2282-2295.	2.8	36
10	Application of a hybrid numerical method to the bifurcation analysis of a rigid rotor supported by a spherical gas journal bearing system. Nonlinear Dynamics, 2008, 51, 515-528.	5.2	33
11	Analyzing the free vibrations of a plate using finite difference and differential transformation method. Applied Mathematics and Computation, 2006, 178, 493-501.	2.2	31
12	Nonlinear dynamic behavior and bifurcation analysis of a rigid rotor supported by a relatively short externally pressurized porous gas journal bearing system. Acta Mechanica, 2006, 183, 41-60.	2.1	31
13	Using finite difference and differential transformation method to analyze of large deflections of orthotropic rectangular plate problem. Applied Mathematics and Computation, 2007, 190, 1146-1156.	2.2	26
14	Theoretical analysis of high speed spindle air bearings by a hybrid numerical method. Applied Mathematics and Computation, 2010, 217, 2084-2096.	2.2	25
15	Real-Time Compensation for Thermal Errors of the Milling Machine. Applied Sciences (Switzerland), 2016, 6, 101.	2.5	24
16	Nonlinear Dynamic Analysis of a Flexible Rotor Supported by Externally Pressurized Porous Gas Journal Bearings. Journal of Tribology, 2002, 124, 553-561.	1.9	22
17	Application of a hybrid numerical method to the nonlinear dynamic analysis of a micro gas bearing system. Nonlinear Dynamics, 2010, 59, 695-710.	5.2	22
18	Nonlinear dynamic and bifurcation analysis of short aerodynamic journal bearings. Tribology International, 2005, 38, 740-748.	5.9	20

#	Article	IF	Citations
19	Bifurcation analysis of an aerodynamic journal bearing system considering the effect of stationary herringbone grooves. Chaos, Solitons and Fractals, 2007, 33, 1532-1545.	5.1	20
20	A numerical investigation into electroosmotic flow in microchannels with complex wavy surfaces. Thermal Science, 2011, 15, 87-94.	1.1	20
21	Review of Computational Schemes in Inverse Heat Conduction Problems. Smart Science, 2018, 6, 94-103.	3.2	19
22	Bifurcation and nonlinear dynamic analysis of united gas-lubricated bearing system. Computers and Mathematics With Applications, 2012, 64, 729-738.	2.7	18
23	Bifurcation and nonlinear analysis of a flexible rotor supported by a relative short spherical gas bearing system. Communications in Nonlinear Science and Numerical Simulation, 2010, 15, 2659-2671.	3.3	16
24	Diagnosis of ball-bearing faults using support vector machine based on the artificial fish-swarm algorithm. Journal of Low Frequency Noise Vibration and Active Control, 2020, 39, 954-967.	2.9	16
25	Bifurcation and nonlinear dynamic analysis of noncircular aerodynamic journal bearing system. Nonlinear Dynamics, 2013, 72, 477-489.	5.2	15
26	Numerical investigation into nonlinear dynamic behavior of electrically-actuated clamped–clamped micro-beam with squeeze-film damping effect. Applied Mathematical Modelling, 2014, 38, 3269-3280.	4.2	15
27	Machine Tool Chatter Identification Based on Dynamic Errors of Different Self-Synchronized Chaotic Systems of Various Fractional Orders. IEEE Access, 2019, 7, 67278-67286.	4.2	15
28	A Study on the Application of Synchronized Chaotic Systems of Different Fractional Orders for Cutting Tool Wear Diagnosis and Identification. IEEE Access, 2019, 7, 15903-15911.	4.2	15
29	A high-precision measurement technique for evaluating alcohol concentrations using an optical metrology system based on a position sensing detector. Optics and Lasers in Engineering, 2009, 47, 599-603.	3.8	12
30	Application of the differential transformation method to bifurcation and chaotic analysis of an AFM probe tip. Computers and Mathematics With Applications, 2011, 61, 1957-1962.	2.7	12
31	Fractional order Sprott chaos synchronisation–based real–time extension power quality detection method. IET Generation, Transmission and Distribution, 2015, 9, 2775-2781.	2.5	12
32	Bifurcation and Chaotic Analysis of Aeroelastic Systems. Journal of Computational and Nonlinear Dynamics, 2014, 9, .	1.2	11
33	Bifurcation Analysis of High Speed Spindle Air Bearings. JVC/Journal of Vibration and Control, 2011, 17, 103-114.	2.6	10
34	Analysis of nonlinear dynamic behavior of atomic force microscope using differential transformation method. Acta Mechanica, 2008, 198, 87-98.	2.1	9
35	Non-periodic and chaotic response of three-multilobe air bearing system. Applied Mathematical Modelling, 2017, 47, 859-871.	4.2	9
36	Theoretical and bifurcation analysis of a flexible rotor supported by gas-lubricated bearing system with porous bushing. Journal of Vibroengineering, 2016, 18, 1934-1940.	1.0	9

#	Article	IF	Citations
37	Non-linear dynamic analysis of a flexible rotor supported by self-acting gas journal bearings. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2004, 218, 1527-1538.	2.1	8
38	Predicting spindle displacement caused by heat using the general regression neural network. International Journal of Advanced Manufacturing Technology, 2019, 104, 4665-4674.	3.0	8
39	Bifurcation analysis of a microcantilever in AFM system. Journal of the Franklin Institute, 2010, 347, 1353-1367.	3.4	7
40	Bifurcation and chaos analysis of atomic force microscope system. Microsystem Technologies, 2013, 19, 1795-1805.	2.0	6
41	Bifurcation Analysis of Bearing Number in Ultra Short Gas Bearing System. Smart Science, 2013, 1, 18-24.	3.2	6
42	Nonlinear dynamic analysis of bi-directional porous aero-thrust bearing systems. Advances in Mechanical Engineering, 2017, 9, 168781401773815.	1.6	6
43	A Modified Polynomial Expansion Algorithm for Solving the Steady-State Allen-Cahn Equation for Heat Transfer in Thin Films. Applied Sciences (Switzerland), 2018, 8, 983.	2.5	6
44	Application of ultrasound thermal process on extracting flavor and caffeine of coffee. Thermal Science, 2011, 15, 69-74.	1.1	5
45	Chaos Analysis and Synchronization Control of Coronary Artery Systems. Abstract and Applied Analysis, 2013, 2013, 1-11.	0.7	5
46	Particle swarm optimization used with proportional–derivative control to analyze nonlinear behavior in the atomic force microscope. Advances in Mechanical Engineering, 2016, 8, 168781401666727.	1.6	5
47	Nonlinear analysis and simulation of active hybrid aerodynamic and aerostatic bearing system. Journal of Low Frequency Noise Vibration and Active Control, 2019, 38, 1404-1421.	2.9	5
48	Multi-hybrid Active Magnetic Bearing Design for Milling Spindle Applications. Sensors and Materials, 2020, 32, 375.	0.5	5
49	A novel optimized energy-saving extraction process on coffee. Thermal Science, 2011, 15, 53-59.	1.1	4
50	Chaotic and dynamic analysis of a flexible rotor supported by ultra short aero-lubricated bearing system. Journal of Applied Research and Technology, 2015, 13, 328-341.	0.9	4
51	Nonlinear behavior analysis and control of the atomic force microscope and circuit implementation. Journal of Low Frequency Noise Vibration and Active Control, 2019, 38, 1576-1593.	2.9	4
52	Research on the nonlinear dynamic characteristics of opposed high-speed gas bearing systems. Journal of Low Frequency Noise Vibration and Active Control, 2020, 39, 502-522.	2.9	4
53	Bifurcation and Nonlinear Behavior Analysis of Dual-Directional Coupled Aerodynamic Bearing Systems. Symmetry, 2020, 12, 1521.	2.2	4
54	Investigation of Milling Stability under Cutting Fluid Supply by Microphone Signal Analysis. Sensors and Materials, 2018, 30, 2419.	0.5	4

#	Article	IF	Citations
55	Nonlinear dynamic analysis of a relatively short spherical gas journal bearing system. Journal of Mechanical Science and Technology, 2010, 24, 1565-1571.	1.5	3
56	Chaotic and Subharmonic Motion Analysis of Floating Ring Gas Bearing System by Hybrid Numerical Method. Mathematical Problems in Engineering, 2013, 2013, 1-14.	1.1	3
57	Nonlinear Behavior of Thermal Lagging in Laser-Irradiated Layered Tissue. Advances in Mechanical Engineering, 2013, 5, 732575.	1.6	3
58	The Deep Drawing of a Flanged Square Hole in Thin Stainless Steel Sheet. Metals, 2021, 11, 1436.	2.3	3
59	Bifurcation analysis of externally pressurized porous gas journal bearings. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2003, 217, 1325-1338.	2.1	2
60	An enhanced common path interference optic measurement system for refractive indices and thickness. Optics and Laser Technology, 2007, 39, 500-506.	4.6	2
61	Numerical computation and nonlinear dynamic analysis of ultrasonic cutting system. Computers and Electrical Engineering, 2016, 51, 270-283.	4.8	2
62	Control circuit design and chaos analysis in an ultrasonic machining system. Engineering Computations, 2017, 34, 2189-2211.	1.4	2
63	A High-Precision Random Forest-Based Maximum Lyapunov Exponent Prediction Model for Spherical Porous Gas Bearing Systems. IEEE Access, 2020, 8, 168079-168086.	4.2	2
64	Identification and Machine Learning Prediction of Nonlinear Behavior in a Robotic Arm System. Symmetry, 2021, 13, 1445.	2.2	2
65	Analysis of Pull-in Characteristics of Double-clamped Nanobeam Incorporating Casimir and van der Waals Effects. Sensors and Materials, 2018, 30, 2627.	0.5	2
66	Acoustic Signal Analysis by Teager–Huang Transform for Milling Chatter Recognition. Sensors and Materials, 2020, 32, 873.	0.5	2
67	Analysis of an aerodynamic grooved journal bearing with plain sleeve. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2006, 220, 51-60.	2.1	1
68	Application of Hybrid Method to the Quasi-Periodic Analysis of Micro Gas Journal Bearing System. , 2008, , .		1
69	Application of lattice Boltzmann method and field synergy principle to the heat transfer analysis of channel flow with obstacles inside. Thermal Science, 2011, 15, 75-80.	1.1	1
70	The heat and fluid flow analysis for water heater. Thermal Science, 2011, 15, 81-86.	1.1	1
71	Bifurcation Analysis of Trailing Edge Angle for Aeroelastic System. , 2012, , .		1
72	Bifurcation and nonlinear dynamic analysis of heart blood vessel system. , 2012, , .		1

#	Article	IF	Citations
73	Application of hybrid microwave thermal extraction techniques for mulberry root bark. Thermal Science, 2013, 17, 1311-1315.	1.1	1
74	Analysis of Supercritical Carbon Dioxide Extraction for the Caffeine and Epigallocatechin-3-Gallate in Green Tea. Journal of Biobased Materials and Bioenergy, 2013, 7, 208-212.	0.3	1
75	Bifurcation and Nonlinear Dynamic Analysis of Externally Pressurized Double Air Films Bearing System. Mathematical Problems in Engineering, 2014, 2014, 1-12.	1.1	1
76	PERFORMANCE ANALYSIS AND IMPROVEMENT DESIGN OF GOLF CLUBS. Transactions of the Canadian Society for Mechanical Engineering, 2016, 40, 667-675.	0.8	1
77	EFFECTS OF DIFFERENT LATERAL FEMORAL WALL THICKNESSES IN INTERTROCHANTERIC HIP FRACTURE TREATED WITH DYNAMIC HIP SCREW. Journal of Mechanics in Medicine and Biology, 2019, 19, 1940022.	0.7	1
78	Analysis of Micro-Machining Process for External Thread of Micro Round Tube. Materials, 2021, 14, 4327.	2.9	1
79	Effect of coffee reduction on constituent concentration in an energy-efficient process of ultrasonic extraction. Thermal Science, 2015, 19, 1373-1377.	1.1	1
80	Optimization Analysis of Vibration for Grinder Spindle. Sensors and Materials, 2020, 32, 407.	0.5	1
81	Optimization of Lathe Cutting Parameters Using Taguchi Method and Grey Relational Analysis. Sensors and Materials, 2020, 32, 843.	0.5	1
82	Chaotic analysis of gyroscope control system via differential transformation method. , 2009, , .		0
83	Nonlinear Dynamic Analysis of Earthquake Model. , 2009, , .		0
84	Influence of the bearing number on micro gas bearing system. , 2009, , .		0
85	Bifurcation and Chaos Analysis of a Relative Short Spherical Air Bearing System via a Novel Hybrid Method. , 2009, , .		0
86	Application of hybrid method to the influence of bearing number on elliptic gas bearing system. , 2011, , .		0
87	Flow and Stress Field Analysis of Different Fluids and Blades for Fermentation Process. Advances in Mechanical Engineering, 2014, 6, 623781.	1.6	0
88	Influence of bearing number on high speed air rotor bearing systems. , 2016, , .		0
89	Optimization design and application of composite ultrasonic extraction method for effective constituents of green tea. Advances in Mechanical Engineering, 2016, 8, 168781401562484.	1.6	0
90	Chaotic control and circuit implementation of the Atomic Force Microscope system. , 2017, , .		0

#	Article	IF	Citations
91	Chaotic Behaviour Investigation of a Front Opposed-Hemispherical Spiral-Grooved Air Bearing System. Shock and Vibration, 2017, 2017, 1-18.	0.6	0
92	Design and Development of Condition Monitoring System for Wind Turbines Based on Generator Output Voltages. Sensors and Materials, 2020, 32, 895.	0.5	0