

Xiaoting Rui

List of Publications by Year in descending order

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88
papers

1,296
citations

394421

19
h-index

434195

31
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91
all docs

91
docs citations

91
times ranked

451
citing authors

#	ARTICLE	IF	CITATIONS
1	Transfer matrix method for linear multibody system. <i>Multibody System Dynamics</i> , 2008, 19, 179-207.	2.7	127
2	Discrete Time Transfer Matrix Method for Multibody System Dynamics. <i>Multibody System Dynamics</i> , 2005, 14, 317-344.	2.7	90
3	Recursive eigenvalue search algorithm for transfer matrix method of linear flexible multibody systems. <i>Multibody System Dynamics</i> , 2014, 32, 429-444.	2.7	61
4	A new version of transfer matrix method for multibody systems. <i>Multibody System Dynamics</i> , 2016, 38, 137-156.	2.7	57
5	Theoretical modeling and numerical solution methods for flexible multibody system dynamics. <i>Nonlinear Dynamics</i> , 2019, 98, 1519-1553.	5.2	56
6	Riccati discrete time transfer matrix method for elastic beam undergoing large overall motion. <i>Multibody System Dynamics</i> , 2007, 18, 579-598.	2.7	44
7	Transfer matrix method for multibody systems (Rui method) and its applications. <i>Science China Technological Sciences</i> , 2019, 62, 712-720.	4.0	44
8	Automatic Deduction Theorem of Overall Transfer Equation of Multibody System. <i>Advances in Mechanical Engineering</i> , 2014, 6, 378047.	1.6	43
9	A parametric study on supersonic/hypersonic flutter behavior of aero-thermo-elastic geometrically imperfect curved skin panel. <i>Acta Mechanica</i> , 2011, 222, 41-57.	2.1	36
10	Aerothermoelastic analysis of panel flutter based on the absolute nodal coordinate formulation. <i>Multibody System Dynamics</i> , 2015, 33, 163-178.	2.7	32
11	Multibody system transfer matrix method: The past, the present, and the future. <i>International Journal of Mechanical System Dynamics</i> , 2022, 2, 3-26.	2.8	32
12	Perturbation Finite Element Transfer Matrix Method for Random Eigenvalue Problems of Uncertain Structures. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012, 79, .	2.2	27
13	Numerical Calculation of Effect of Elastic Deformation on Aerodynamic Characteristics of a Rocket. <i>International Journal of Aerospace Engineering</i> , 2014, 2014, 1-11.	0.9	25
14	Transfer matrix method for determination of the natural vibration characteristics of elastically coupled launch vehicle boosters. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2015, 31, 570-580.	3.4	24
15	Dynamics analysis and fuzzy anti-swing control design of overhead crane system based on Riccati discrete time transfer matrix method. <i>Multibody System Dynamics</i> , 2018, 43, 279-295.	2.7	24
16	A novel method for the dynamic modeling of Stewart parallel mechanism. <i>Mechanism and Machine Theory</i> , 2018, 126, 397-412.	4.5	23
17	Dynamics Modelling and Simulating of Ultra-precision Fly-Cutting Machine Tool. <i>International Journal of Precision Engineering and Manufacturing</i> , 2020, 21, 189-202.	2.2	23
18	Study on launch dynamics of the tank marching fire. <i>Journal of Shanghai Jiaotong University (Science)</i> , 2016, 21, 443-449.	0.9	21

#	ARTICLE	IF	CITATIONS
19	Study on the Natural Vibration Characteristics of Flexible Missile With Thrust by Using Riccati Transfer Matrix Method. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	2.2	20
20	New efficient method for dynamic modeling and simulation of flexible multibody systems moving in a plane. Multibody System Dynamics, 2010, 24, 181-200.	2.7	19
21	Size effect of carbon black on the structure and mechanical properties of magnetorheological elastomers. Journal of Materials Science, 2019, 54, 1326-1340.	3.7	19
22	Visualized simulation and design method of mechanical system dynamics based on transfer matrix method for multibody systems. Advances in Mechanical Engineering, 2017, 9, 168781401771472.	1.6	18
23	Discrete time transfer matrix method for dynamics analysis of complex weapon systems. Science China Technological Sciences, 2011, 54, 1061-1071.	4.0	17
24	Panel flutter analysis of plate element based on the absolute nodal coordinate formulation. Multibody System Dynamics, 2012, 27, 135-152.	2.7	17
25	Riccati Transfer Matrix Method for Linear Tree Multibody Systems. Journal of Applied Mechanics, Transactions ASME, 2017, 84, .	2.2	17
26	Optimal design of 6-DOF vibration isolation platform based on transfer matrix method for multibody systems. Acta Mechanica Sinica/Lixue Xuebao, 2021, 37, 127-137.	3.4	17
27	A new version of the Riccati transfer matrix method for multibody systems consisting of chain and branch bodies. Multibody System Dynamics, 2020, 49, 337-354.	2.7	15
28	Natural Vibrations of Open-Variable Thickness Circular Cylindrical Shells in High Temperature Field. Journal of Aerospace Engineering, 2010, 23, 205-212.	1.4	14
29	Study on automatic deduction method of overall transfer equation for branch multibody system. Advances in Mechanical Engineering, 2016, 8, 168781401665158.	1.6	14
30	Dynamics design for multiple launch rocket system using transfer matrix method for multibody system. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2016, 230, 2557-2568.	1.3	13
31	Flapwise Vibration Computations of Coupled Helicopter Rotor/Fuselage: Application of Multibody System Dynamics. AIAA Journal, 2018, 56, 818-835.	2.6	13
32	Dynamic Simulation of Space Debris Cloud Capture Using the Tethered Net. Space: Science & Technology, 2021, 2021, .	2.5	13
33	Controller Parameters Tuning Based on Transfer Matrix Method for Multibody Systems. Advances in Mechanical Engineering, 2014, 6, 957684.	1.6	12
34	Research on the dynamic characteristics of the ultra-precision fly cutting machine tool and its influence on the mid-frequency waviness of the surface. International Journal of Advanced Manufacturing Technology, 2020, 106, 441-454.	3.0	12
35	Transfer Matrix Method for Natural Vibration Analysis of Tree System. Mathematical Problems in Engineering, 2012, 2012, 1-19.	1.1	11
36	A Novel Method for Prediction of Propellant Shelf Life Based on Arrhenius Equation. Propellants, Explosives, Pyrotechnics, 2018, 43, 348-354.	1.6	11

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37	Adaptive Control of a Piezo-Actuated Steering Mirror to Restrain Laser-Beam Jitter. IEEE Transactions on Industrial Electronics, 2019, 66, 7873-7881.	7.9	11
38	Design of multi-channel bypass magnetorheological damper with three working modes. International Journal of Mechanics and Materials in Design, 2022, 18, 155-167.	3.0	11
39	Control of Period-Doubling and Chaos in Varying Compliance Resonances for a Ball Bearing. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .	2.2	11
40	Discrete Time Transfer Matrix Method for Dynamic Modeling of Complex Spacecraft With Flexible Appendages. Journal of Computational and Nonlinear Dynamics, 2011, 6, .	1.2	10
41	Static/Dynamic Edge Movability Effect on Non-Linear Aerothermoelastic Behavior of Geometrically Imperfect Curved Skin Panel: Flutter and Post-Flutter Analysis. Journal of Applied Mechanics, Transactions ASME, 2012, 79, .	2.2	10
42	Substructuring technique for dynamics analysis of flexible beams with large deformation. Journal of Shanghai Jiaotong University (Science), 2017, 22, 562-569.	0.9	10
43	Design and control of helicopter main reducer vibration isolation platform with magnetorheological dampers. International Journal of Mechanics and Materials in Design, 2021, 17, 345-366.	3.0	10
44	Study on the Dynamics of Laser Gyro Strapdown Inertial Measurement Unit System Based on Transfer Matrix Method for Multibody System. Advances in Mechanical Engineering, 2013, 5, 854583.	1.6	9
45	Deduction method of the overall transfer equation of linear controlled multibody systems. Multibody System Dynamics, 2016, 38, 263-295.	2.7	9
46	Study on test dynamics method of non-full loading firing for multiple launch rocket system. Mechanical Systems and Signal Processing, 2019, 122, 463-479.	8.0	9
47	Discrete Time Transfer Matrix Method for Launch Dynamics Modeling and Cosimulation of Self-Propelled Artillery System. Journal of Applied Mechanics, Transactions ASME, 2013, 80, .	2.2	8
48	Free Vibration Characteristic of Multilevel Beam Based on Transfer Matrix Method of Linear Multibody Systems. Advances in Mechanical Engineering, 2014, 6, 792478.	1.6	8
49	Active Vibration Control Design Method Based on Transfer Matrix Method for Multibody Systems. Journal of Engineering Mechanics - ASCE, 2017, 143, .	2.9	8
50	Study on simulation and experiment of control for multiple launch rocket system by computed torque method. Nonlinear Dynamics, 2018, 91, 1639-1652.	5.2	8
51	Propellant shelf-life prediction under temperature and relative humidity conditions based on DPA kinetics. Journal of Energetic Materials, 2019, 37, 407-419.	2.0	7
52	Mechanism and Characteristics of Global Varying Compliance Parametric Resonances in a Ball Bearing. Applied Sciences (Switzerland), 2020, 10, 7849.	2.5	7
53	A calculation method of interior ballistic two-phase flow considering the compression and fracture process of propellant bed. International Communications in Heat and Mass Transfer, 2020, 115, 104601.	5.6	6
54	Dynamic modeling and H [∞] independent modal space vibration control of laminate plates. Science China: Physics, Mechanics and Astronomy, 2011, 54, 1638-1650.	5.1	5

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55	Study on Launch Dynamics of Self-Propelled Artillery Based on Transfer Matrix Method of Multibody System. <i>Advances in Mechanical Engineering</i> , 2014, 6, 308049.	1.6	5
56	Improved incremental transfer matrix method for nonlinear rotor-bearing system. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2020, 36, 1119-1132.	3.4	5
57	Control and experimental study of 6-DOF vibration isolation platform with magnetorheological damper. <i>Mechatronics</i> , 2022, 81, 102706.	3.3	5
58	Discrete Time Transfer Matrix Method for Projectile Trajectory Prediction. <i>Journal of Aerospace Engineering</i> , 2015, 28, 04014057.	1.4	4
59	Design and implementation of an adaptive Kalman filtering for the launcher of multiple launch rocket system. <i>International Journal of Adaptive Control and Signal Processing</i> , 2018, 32, 447-463.	4.1	4
60	A Novel Method for Gas Generation Law Calculation of Fractured Propellant Charge. <i>Propellants, Explosives, Pyrotechnics</i> , 2018, 43, 898-903.	1.6	4
61	The study of natural rubber/polybutadiene rubber hybrid matrix-based magnetorheological elastomer. <i>Journal of Thermoplastic Composite Materials</i> , 2019, , 089270571987822.	4.2	4
62	Water-Dispersible Hydrothermal Aramid Nanofibers Reinforced Styrene-Butadiene Rubber with Enhanced Mechanical Behaviour and Solvent Resistance. <i>Fibers and Polymers</i> , 2020, 21, 1808-1815.	2.1	4
63	Study on automatic deduction method of overall transfer equation for tree systems as well as closed-loop-and-branch-mixed systems. <i>Advances in Mechanical Engineering</i> , 2018, 10, 168781401878875.	1.6	3
64	Direct differentiation method for sensitivity analysis based on transfer matrix method for multibody systems. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 115, 1601-1622.	2.8	3
65	Dynamic mechanical properties of FeSi alloy particles-filled magnetorheological elastomers. <i>Polymer-Plastics Technology and Materials</i> , 2019, 58, 1625-1637.	1.3	3
66	Contact dynamics analysis of the single-pin meshing pair of a tracked vehicle. <i>Nonlinear Dynamics</i> , 2021, 104, 1139-1155.	5.2	3
67	Dynamics modeling and simulation of tracked armored vehicle with planar clearance trunnion-bearing revolute joint. <i>Journal of Mechanical Science and Technology</i> , 2021, 35, 2285-2302.	1.5	3
68	Study on Transfer Matrix Method for the Planar Multibody System With Closed-Loops. <i>Journal of Computational and Nonlinear Dynamics</i> , 2021, 16, .	1.2	3
69	Effect of coupling misalignment fault on vibration response and machined surface topography in ultra-precision lathe turning. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 120, 691-706.	3.0	3
70	Distributed parallel computing of the recursive eigenvalue search in the context of transfer matrix method for multibody systems. <i>Advances in Mechanical Engineering</i> , 2016, 8, 168781401668073.	1.6	2
71	Suppression of Complex Hysteretic Resonances in Varying Compliance Vibration of a Ball Bearing. <i>Shock and Vibration</i> , 2020, 2020, 1-11.	0.6	2
72	A simplified dynamic model and control for a multiple launch rocket system. <i>JVC/Journal of Vibration and Control</i> , 2022, 28, 2288-2300.	2.6	2

#	ARTICLE	IF	CITATIONS
73	Influences of the Random Stacking and Charge's Diameter on Compression and Fracture Process of Propellant Charge. Propellants, Explosives, Pyrotechnics, 2022, 47, .	1.6	2
74	Study on the Dynamics Response of Ultra-Precision Single-Point Diamond Fly-Cutting Machine Tool As Multi-Rigid-Flexible-Body System Based on Transfer Matrix Method for Multibody Systems. , 2018, , .		2
75	Tracking control of a 3-dimensional piezo-driven micro-positioning system using a dynamic Prandtl–Ishlinskii model. Journal of Intelligent Material Systems and Structures, 2022, 33, 1231-1243.	2.5	2
76	Study on Dynamic Burning Rate Equation of Propellant. Propellants, Explosives, Pyrotechnics, 2017, 42, 683-690.	1.6	1
77	Research on the Adaptive Damping Method of Strap-Down Inertial Measurement Unit Based on the Magneto Rheological Technology. Shock and Vibration, 2017, 2017, 1-14.	0.6	1
78	Dynamics modeling and control of active track tensioning system for tracked vehicle. JVC/Journal of Vibration and Control, 2020, 26, 989-1000.	2.6	1
79	A Hotspot Model for PBX Explosive Charge Ignition in a Launch Environment.. Combustion Science and Technology, 2020, , 1-19.	2.3	1
80	A Novel Vibration Control System Applying Annularly Arranged Thrusters for Multiple Launch Rocket System in Launching Process. Shock and Vibration, 2020, 2020, 1-14.	0.6	1
81	Current Driver Design for Electromagnetic Coil Using Adaptive Active Disturbance Rejection Control. Shock and Vibration, 2021, 2021, 1-12.	0.6	1
82	On modeling and dynamics of a multiple launch rocket system. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2021, 235, 1664-1686.	1.3	1
83	Study on the dynamic mechanical properties of magnetorheological elastomer (MRE) with Fe@C. Journal of Intelligent Material Systems and Structures, 2022, 33, 1115-1125.	2.5	1
84	Improved modeling and active disturbance rejection control of tank gun control system. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 0, , 095965182211045.	1.0	1
85	New Developments in Multibody System Dynamics and Its Applications. Advances in Mechanical Engineering, 2014, 6, 671604.	1.6	0
86	New Developments in Multibody System Dynamics and Its Applications 2015. Advances in Mechanical Engineering, 2017, 9, 168781401769568.	1.6	0
87	Study on the geometrical nonlinearity and order reduction for the dynamics of a spatial curved beam. Multibody System Dynamics, 2019, 47, 183-202.	2.7	0
88	Vibration Characteristics Analysis of Multibody Systems With Random Parameters Based on MSTMM. , 2019, , .		0