

Qiang Tian

List of Publications by Year in descending order

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Version: 2024-02-01

57
papers

2,641
citations

218381

26
h-index

189595

50
g-index

59
all docs

59
docs citations

59
times ranked

808
citing authors

#	ARTICLE	IF	CITATIONS
1	A comprehensive survey of the analytical, numerical and experimental methodologies for dynamics of multibody mechanical systems with clearance or imperfect joints. Mechanism and Machine Theory, 2018, 122, 1-57.	2.7	277
2	Simulation of planar flexible multibody systems with clearance and lubricated revolute joints. Nonlinear Dynamics, 2010, 60, 489-511.	2.7	204
3	Dynamics of spatial flexible multibody systems with clearance and lubricated spherical joints. Computers and Structures, 2009, 87, 913-929.	2.4	184
4	A new model for dry and lubricated cylindrical joints with clearance in spatial flexible multibody systems. Nonlinear Dynamics, 2011, 64, 25-47.	2.7	180
5	Dynamics of a large scale rigid-flexible multibody system composed of composite laminated plates. Multibody System Dynamics, 2011, 26, 283-305.	1.7	134
6	ElastoHydroDynamic lubricated cylindrical joints for rigid-flexible multibody dynamics. Computers and Structures, 2013, 114-115, 106-120.	2.4	124
7	Dynamics and control of a spatial rigid-flexible multibody system with multiple cylindrical clearance joints. Mechanism and Machine Theory, 2012, 52, 106-129.	2.7	104
8	Nonlinear dynamics and chaotic control of a flexible multibody system with uncertain joint clearance. Nonlinear Dynamics, 2016, 86, 1571-1597.	2.7	94
9	Coupling dynamics of a geared multibody system supported by ElastoHydroDynamic lubricated cylindrical joints. Multibody System Dynamics, 2015, 33, 259-284.	1.7	81
10	New spatial curved beam and cylindrical shell elements of gradient-deficient Absolute Nodal Coordinate Formulation. Nonlinear Dynamics, 2012, 70, 1903-1918.	2.7	72
11	Dynamic analysis of membrane systems undergoing overall motions, large deformations and wrinkles via thin shell elements of ANCF. Computer Methods in Applied Mechanics and Engineering, 2013, 258, 81-95.	3.4	71
12	Dynamic simulation of liquid-filled flexible multibody systems via absolute nodal coordinate formulation and SPH method. Nonlinear Dynamics, 2014, 75, 653-671.	2.7	69
13	An Efficient Hybrid Method for Multibody Dynamics Simulation Based on Absolute Nodal Coordinate Formulation. Journal of Computational and Nonlinear Dynamics, 2009, 4, .	0.7	65
14	Dynamics of spatial rigid-flexible multibody systems with uncertain interval parameters. Nonlinear Dynamics, 2016, 84, 527-548.	2.7	61
15	A new elasto-hydrodynamic lubricated spherical joint model for rigid-flexible multibody dynamics. Mechanism and Machine Theory, 2017, 107, 210-228.	2.7	56
16	Dynamic simulation of frictional contacts of thin beams during large overall motions via absolute nodal coordinate formulation. Nonlinear Dynamics, 2014, 77, 1411-1425.	2.7	43
17	Simulation of a viscoelastic flexible multibody system using absolute nodal coordinate and fractional derivative methods. Multibody System Dynamics, 2009, 21, 281-303.	1.7	42
18	Structural optimization of flexible components in a flexible multibody system modeled via ANCF. Mechanism and Machine Theory, 2016, 104, 59-80.	2.7	41

#	ARTICLE	IF	CITATIONS
19	Deployment dynamics of a simplified spinning IKAROS solar sail via absolute coordinate based method. Acta Mechanica Sinica/Lixue Xuebao, 2013, 29, 132-142.	1.5	40
20	A consistent multi-resolution smoothed particle hydrodynamics method. Computer Methods in Applied Mechanics and Engineering, 2017, 324, 278-299.	3.4	40
21	Topology optimization of a flexible multibody system with variable-length bodies described by ALE-ANCF. Nonlinear Dynamics, 2018, 93, 413-441.	2.7	40
22	Nonlinear static and dynamic analysis of hyper-elastic thin shells via the absolute nodal coordinate formulation. Nonlinear Dynamics, 2016, 85, 949-971.	2.7	37
23	Dynamics of a Deployable Mesh Reflector of Satellite Antenna: Form-Finding and Modal Analysis. Journal of Computational and Nonlinear Dynamics, 2016, 11, .	0.7	36
24	Dynamic simulation of frictional multi-zone contacts of thin beams. Nonlinear Dynamics, 2016, 83, 1919-1937.	2.7	36
25	Dynamics of a Deployable Mesh Reflector of Satellite Antenna: Parallel Computation and Deployment Simulation1. Journal of Computational and Nonlinear Dynamics, 2016, 11, .	0.7	33
26	Model order reduction for dynamic simulation of a flexible multibody system via absolute nodal coordinate formulation. Computer Methods in Applied Mechanics and Engineering, 2017, 324, 573-594.	3.4	30
27	Modal Analysis of a Rotating Thin Plate via Absolute Nodal Coordinate Formulation. Journal of Computational and Nonlinear Dynamics, 2011, 6, .	0.7	28
28	Simple formulations of imposing moments and evaluating joint reaction forces for rigid-flexible multibody systems. Nonlinear Dynamics, 2012, 69, 127-147.	2.7	27
29	A new multibody system approach for tire modeling using ANCF finite elements. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2016, 230, 69-84.	0.5	27
30	An efficient model reduction method for buckling analyses of thin shells based on IGA. Computer Methods in Applied Mechanics and Engineering, 2016, 309, 243-268.	3.4	26
31	Three new triangular shell elements of ANCF represented by BÄzier triangles. Multibody System Dynamics, 2015, 35, 321-351.	1.7	24
32	Topology Optimization of a Three-Dimensional Flexible Multibody System Via Moving Morphable Components. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	0.7	23
33	Topology optimization based on level set for a flexible multibody system modeled via ANCF. Structural and Multidisciplinary Optimization, 2017, 55, 1159-1177.	1.7	22
34	Dynamics of soft mechanical systems actuated by dielectric elastomers. Mechanical Systems and Signal Processing, 2021, 151, 107392.	4.4	22
35	Dynamics of flexible multibody systems with hybrid uncertain parameters. Mechanism and Machine Theory, 2018, 121, 128-147.	2.7	21
36	Topology optimization for eigenfrequencies of a rotating thin plate via moving morphable components. Journal of Sound and Vibration, 2019, 448, 83-107.	2.1	20

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37	Model order reduction based on successively local linearizations for flexible multibody dynamics. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 118, 159-180.	1.5	18
38	Simultaneous topology and size optimization of a 3D variable-length structure described by the ALE-ANCF. <i>Mechanism and Machine Theory</i> , 2018, 129, 80-105.	2.7	17
39	Axially variable-length solid element of absolute nodal coordinate formulation. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2019, 35, 653-663.	1.5	17
40	Efficient modeling and order reduction of new 3D beam elements with warping via absolute nodal coordinate formulation. <i>Nonlinear Dynamics</i> , 2022, 109, 2319-2354.	2.7	16
41	Dynamic modeling, simulation and design of smart membrane systems driven by soft actuators of multilayer dielectric elastomers. <i>Nonlinear Dynamics</i> , 2020, 102, 1463-1483.	2.7	15
42	Assembly dynamics of a large space modular satellite antenna. <i>Mechanism and Machine Theory</i> , 2019, 142, 103601.	2.7	13
43	Dynamic fracture simulation of flexible multibody systems via coupled finite elements of ANCF and particles of SPH. <i>Nonlinear Dynamics</i> , 2016, 84, 2447-2465.	2.7	12
44	Computational dynamics of soft machines. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2017, 33, 516-528.	1.5	11
45	A condensed algorithm for adaptive component mode synthesis of viscoelastic flexible multibody dynamics. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 609-637.	1.5	10
46	A Soft and Bistable Gripper with Adjustable Energy Barrier for Fast Capture in Space. <i>Soft Robotics</i> , 2023, 10, 77-87.	4.6	10
47	Simulating coupled dynamics of a rigid-flexible multibody system and compressible fluid. <i>Science China: Physics, Mechanics and Astronomy</i> , 2018, 61, 1.	2.0	9
48	Nonsmooth spatial frictional contact dynamics of multibody systems. <i>Multibody System Dynamics</i> , 2021, 53, 1-27.	1.7	9
49	Contact dynamics of elasto-plastic thin beams simulated via absolute nodal coordinate formulation. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2016, 32, 525-534.	1.5	8
50	A multisymplectic Lie algebra variational integrator for flexible multibody dynamics on the special Euclidean group SE (3). <i>Mechanism and Machine Theory</i> , 2022, 174, 104918.	2.7	8
51	Dynamics of fluid-filled space multibody systems considering the microgravity effects. <i>Mechanism and Machine Theory</i> , 2020, 148, 103809.	2.7	7
52	Soft Machines: Challenges to Computational Dynamics. <i>Procedia IUTAM</i> , 2017, 20, 10-17.	1.2	6
53	Multiple Dynamic Response Patterns of Flexible Multibody Systems With Random Uncertain Parameters. <i>Journal of Computational and Nonlinear Dynamics</i> , 2019, 14, .	0.7	5
54	Optimal Design of Electrode Topology of Dielectric Elastomer Actuators Based on the Parameterized Level Set Method. <i>Soft Robotics</i> , 2023, 10, 106-118.	4.6	5

#	ARTICLE	IF	CITATIONS
55	Dynamics of Space Deployable Structures. , 2015, , .		4
56	Sensitivity analysis of deployable flexible space structures with a large number of design parameters. Nonlinear Dynamics, 2021, 105, 2055-2079.	2.7	4
57	Three-Dimensional Topology Optimization of a Flexible Multibody System via Moving Morphable Components. , 2018, , 1529-1542.		1