

# Qiang Tian

## List of Publications by Citations

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54  
papers

1,944  
citations

23  
h-index

43  
g-index

59  
ext. papers

2,342  
ext. citations

3.9  
avg. IF

5.37  
L-index

#	Paper	IF	Citations
54	A comprehensive survey of the analytical, numerical and experimental methodologies for dynamics of multibody mechanical systems with clearance or imperfect joints. <i>Mechanism and Machine Theory</i> , <b>2018</b> , 122, 1-57	4	187
53	Dynamics of spatial flexible multibody systems with clearance and lubricated spherical joints. <i>Computers and Structures</i> , <b>2009</b> , 87, 913-929	4.5	159
52	A new model for dry and lubricated cylindrical joints with clearance in spatial flexible multibody systems. <i>Nonlinear Dynamics</i> , <b>2011</b> , 64, 25-47	5	156
51	Simulation of planar flexible multibody systems with clearance and lubricated revolute joints. <i>Nonlinear Dynamics</i> , <b>2010</b> , 60, 489-511	5	155
50	ElastoHydroDynamic lubricated cylindrical joints for rigid-flexible multibody dynamics. <i>Computers and Structures</i> , <b>2013</b> , 114-115, 106-120	4.5	101
49	Dynamics of a large scale rigid-flexible multibody system composed of composite laminated plates. <i>Multibody System Dynamics</i> , <b>2011</b> , 26, 283-305	2.8	97
48	Dynamics and control of a spatial rigid-flexible multibody system with multiple cylindrical clearance joints. <i>Mechanism and Machine Theory</i> , <b>2012</b> , 52, 106-129	4	90
47	Nonlinear dynamics and chaotic control of a flexible multibody system with uncertain joint clearance. <i>Nonlinear Dynamics</i> , <b>2016</b> , 86, 1571-1597	5	75
46	Coupling dynamics of a geared multibody system supported by ElastoHydroDynamic lubricated cylindrical joints. <i>Multibody System Dynamics</i> , <b>2015</b> , 33, 259-284	2.8	71
45	An Efficient Hybrid Method for Multibody Dynamics Simulation Based on Absolute Nodal Coordinate Formulation. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2009</b> , 4,	1.4	57
44	Dynamic analysis of membrane systems undergoing overall motions, large deformations and wrinkles via thin shell elements of ANCF. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2013</b> , 258, 81-95	5.7	52
43	New spatial curved beam and cylindrical shell elements of gradient-deficient Absolute Nodal Coordinate Formulation. <i>Nonlinear Dynamics</i> , <b>2012</b> , 70, 1903-1918	5	52
42	Dynamics of spatial rigid-flexible multibody systems with uncertain interval parameters. <i>Nonlinear Dynamics</i> , <b>2016</b> , 84, 527-548	5	47
41	Dynamic simulation of liquid-filled flexible multibody systems via absolute nodal coordinate formulation and SPH method. <i>Nonlinear Dynamics</i> , <b>2014</b> , 75, 653-671	5	47
40	A new elastoHydrodynamic lubricated spherical joint model for rigid-flexible multibody dynamics. <i>Mechanism and Machine Theory</i> , <b>2017</b> , 107, 210-228	4	42
39	Dynamic simulation of frictional contacts of thin beams during large overall motions via absolute nodal coordinate formulation. <i>Nonlinear Dynamics</i> , <b>2014</b> , 77, 1411-1425	5	37
38	Dynamic simulation of frictional multi-zone contacts of thin beams. <i>Nonlinear Dynamics</i> , <b>2016</b> , 83, 1919-1937	5	33

37	Structural optimization of flexible components in a flexible multibody system modeled via ANCF. <i>Mechanism and Machine Theory</i> , <b>2016</b> , 104, 59-80	4	31
36	A consistent multi-resolution smoothed particle hydrodynamics method. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2017</b> , 324, 278-299	5.7	30
35	Deployment dynamics of a simplified spinning IKAROS solar sail via absolute coordinate based method. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , <b>2013</b> , 29, 132-142	2	30
34	Simulation of a viscoelastic flexible multibody system using absolute nodal coordinate and fractional derivative methods. <i>Multibody System Dynamics</i> , <b>2009</b> , 21, 281-303	2.8	30
33	Dynamics of a Deployable Mesh Reflector of Satellite Antenna: Parallel Computation and Deployment Simulation1. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2016</b> , 11,	1.4	24
32	Dynamics of a Deployable Mesh Reflector of Satellite Antenna: Form-Finding and Modal Analysis. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2016</b> , 11,	1.4	23
31	Nonlinear static and dynamic analysis of hyper-elastic thin shells via the absolute nodal coordinate formulation. <i>Nonlinear Dynamics</i> , <b>2016</b> , 85, 949-971	5	22
30	A new multibody system approach for tire modeling using ANCF finite elements. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , <b>2016</b> , 230, 69-84	0.9	21
29	Simple formulations of imposing moments and evaluating joint reaction forces for rigid-flexible multibody systems. <i>Nonlinear Dynamics</i> , <b>2012</b> , 69, 127-147	5	21
28	Modal Analysis of a Rotating Thin Plate via Absolute Nodal Coordinate Formulation. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2011</b> , 6,	1.4	21
27	Topology optimization of a flexible multibody system with variable-length bodies described by ALE-ANCF. <i>Nonlinear Dynamics</i> , <b>2018</b> , 93, 413-441	5	20
26	Model order reduction for dynamic simulation of a flexible multibody system via absolute nodal coordinate formulation. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2017</b> , 324, 573-594	5.7	20
25	Three new triangular shell elements of ANCF represented by Bézier triangles. <i>Multibody System Dynamics</i> , <b>2015</b> , 35, 321-351	2.8	19
24	An efficient model reduction method for buckling analyses of thin shells based on IGA. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2016</b> , 309, 243-268	5.7	17
23	Dynamics of flexible multibody systems with hybrid uncertain parameters. <i>Mechanism and Machine Theory</i> , <b>2018</b> , 121, 128-147	4	17
22	Topology Optimization of a Three-Dimensional Flexible Multibody System Via Moving Morphable Components. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2018</b> , 13,	1.4	15
21	Topology optimization based on level set for a flexible multibody system modeled via ANCF. <i>Structural and Multidisciplinary Optimization</i> , <b>2017</b> , 55, 1159-1177	3.6	15
20	Simultaneous topology and size optimization of a 3D variable-length structure described by the ALE-ANCF. <i>Mechanism and Machine Theory</i> , <b>2018</b> , 129, 80-105	4	12

19	Topology optimization for eigenfrequencies of a rotating thin plate via moving morphable components. <i>Journal of Sound and Vibration</i> , <b>2019</b> , 448, 83-107	3.9	11
18	Dynamic fracture simulation of flexible multibody systems via coupled finite elements of ANCF and particles of SPH. <i>Nonlinear Dynamics</i> , <b>2016</b> , 84, 2447-2465	5	10
17	Axially variable-length solid element of absolute nodal coordinate formulation. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , <b>2019</b> , 35, 653-663	2	9
16	Simulating coupled dynamics of a rigid-flexible multibody system and compressible fluid. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2018</b> , 61, 1	3.6	7
15	Contact dynamics of elasto-plastic thin beams simulated via absolute nodal coordinate formulation. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , <b>2016</b> , 32, 525-534	2	7
14	Computational dynamics of soft machines. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , <b>2017</b> , 33, 516-528	2	6
13	Assembly dynamics of a large space modular satellite antenna. <i>Mechanism and Machine Theory</i> , <b>2019</b> , 142, 103601	4	6
12	Dynamic modeling, simulation and design of smart membrane systems driven by soft actuators of multilayer dielectric elastomers. <i>Nonlinear Dynamics</i> , <b>2020</b> , 102, 1463-1483	5	6
11	Dynamics of soft mechanical systems actuated by dielectric elastomers. <i>Mechanical Systems and Signal Processing</i> , <b>2021</b> , 151, 107392	7.8	6
10	Soft Machines: Challenges to Computational Dynamics. <i>Procedia IUTAM</i> , <b>2017</b> , 20, 10-17		5
9	Dynamics of fluid-filled space multibody systems considering the microgravity effects. <i>Mechanism and Machine Theory</i> , <b>2020</b> , 148, 103809	4	4
8	Dynamics of Space Deployable Structures <b>2015</b> ,		4
7	Multiple Dynamic Response Patterns of Flexible Multibody Systems With Random Uncertain Parameters. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2019</b> , 14,	1.4	4
6	Model order reduction based on successively local linearizations for flexible multibody dynamics. <i>International Journal for Numerical Methods in Engineering</i> , <b>2018</b> , 118, 159	2.4	4
5	A condensed algorithm for adaptive component mode synthesis of viscoelastic flexible multibody dynamics. <i>International Journal for Numerical Methods in Engineering</i> , <b>2021</b> , 122, 609-637	2.4	3
4	Nonsmooth spatial frictional contact dynamics of multibody systems. <i>Multibody System Dynamics</i> , <b>2021</b> , 53, 1-27	2.8	2
3	Sensitivity analysis of deployable flexible space structures with a large number of design parameters. <i>Nonlinear Dynamics</i> , <b>2021</b> , 105, 2055-2079	5	0
2	A multisymplectic Lie algebra variational integrator for flexible multibody dynamics on the special Euclidean group SE (3). <i>Mechanism and Machine Theory</i> , <b>2022</b> , 174, 104918	4	0

- 1 Three-Dimensional Topology Optimization of a Flexible Multibody System via Moving Morphable Components **2018**, 1529-1542