Karin Nachbagauer

List of Publications by Year
in descending order

23	445	840776 11	794594 19
papers	citations	h-index	g-index

23	23	23	202
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A new locking-free formulation for planar, shear deformable, linear and quadratic beam finite elements based on the absolute nodal coordinate formulation. Multibody System Dynamics, 2011, 26, 245-263.	2.7	94
2	State of the Art of ANCF Elements Regarding Geometric Description, Interpolation Strategies, Definition of Elastic Forces, Validation and the Locking Phenomenon in Comparison with Proposed Beam Finite Elements. Archives of Computational Methods in Engineering, 2014, 21, 293-319.	10.2	71
3	The Use of the Adjoint Method for Solving Typical Optimization Problems in Multibody Dynamics. Journal of Computational and Nonlinear Dynamics, 2015, 10, .	1.2	46
4	Structural and Continuum Mechanics Approaches for a 3D Shear Deformable ANCF Beam Finite Element: Application to Static and Linearized Dynamic Examples. Journal of Computational and Nonlinear Dynamics, 2013, 8, .	1.2	39
5	Structural and Continuum Mechanics Approaches for a 3D Shear Deformable ANCF Beam Finite Element: Application to Buckling and Nonlinear Dynamic Examples. Journal of Computational and Nonlinear Dynamics, 2014, 9, .	1.2	23
6	On the rotational equations of motion in rigid body dynamics when using Euler parameters. Nonlinear Dynamics, 2015, 81, 343-352.	5.2	23
7	A 3D Shear Deformable Finite Element Based on the Absolute Nodal Coordinate Formulation. Computational Methods in Applied Sciences (Springer), 2013, , 77-96.	0.3	20
8	HOTINT: A Script Language Based Framework for the Simulation of Multibody Dynamics Systems. , 2013, , .		20
9	The Discrete Adjoint Gradient Computation for Optimization Problems in Multibody Dynamics. Journal of Computational and Nonlinear Dynamics, 2017, 12, .	1.2	18
10	A Detailed Derivation of the Velocity-Dependent Inertia Forces in the Floating Frame of Reference Formulation. Journal of Computational and Nonlinear Dynamics, 2014, 9, .	1.2	15
11	The discrete adjoint method for parameter identification in multibody system dynamics. Multibody System Dynamics, 2018, 42, 397-410.	2.7	15
12	Optimal input design for multibody systems by using an extended adjoint approach. Multibody System Dynamics, 2017, 40, 43-54.	2.7	13
13	A Spatial Thin Beam Finite Element Based on the Absolute Nodal Coordinate Formulation Without Singularities. , 2011, , .		11
14	The Adjoint Method for Time-Optimal Control Problems. Journal of Computational and Nonlinear Dynamics, 2021, 16, .	1.2	9
15	A modified HHT method for the numerical simulation of rigid body rotations with Euler parameters. Multibody System Dynamics, 2019, 46, 181-202.	2.7	8
16	Enhancement of the Adjoint Method by Error Control of Accelerations for Parameter Identification in Multibody Dynamics. Universal Journal of Control and Automation, 2015, 3, 47-52.	0.5	6
17	A frequency domain approach for parameter identification in multibody dynamics. Multibody System Dynamics, 2018, 43, 175-191.	2.7	5
18	The Absolute Nodal Coordinate Formulation. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2016, , 159-200.	0.6	4

#	Article	IF	Citations
19	A spatial shear deformable beam finite element based on the absolute nodal coordinate formulation. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 59-60.	0.2	2
20	Refined Zigzag Theory: an appropriate tool for the analysis of CLT-plates and other shear-elastic timber structures. European Journal of Wood and Wood Products, 2020, 78, 1125-1135.	2.9	2
21	Identification of System Properties in a Square Frame Undergoing Large Deformations: Numerical and Experimental Investigations. International Journal of Structural Stability and Dynamics, 2014, 14, 1450017.	2.4	1
22	On the Numerical Identification of System Properties in a Square Frame. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 91-92.	0.2	0
23	An Efficient Treatment of Parameter Identification in the Context of Multibody System Dynamics Using the Adjoint Method. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 1-8.	0.5	0