Paolo Tiso

List of Publications by Year in descending order

56 papers	1,074 citations	471509 17 h-index	434195 31 g-index
57 all docs	57 docs citations	57 times ranked	564 citing authors

#	Article	IF	Citations
1	Morphing Wing Flight Control Via Postbuckled Precompressed Piezoelectric Actuators. Journal of Aircraft, 2007, 44, 1060-1068.	2.4	87
2	Nonlinear model order reduction for flexible multibody dynamics: a modal derivatives approach. Multibody System Dynamics, 2016, 36, 405-425.	2.7	77
3	A quadratic manifold for model order reduction of nonlinear structural dynamics. Computers and Structures, 2017, 188, 80-94.	4.4	76
4	Post-buckled precompressed elements: a new class of control actuators for morphing wing UAVs. Smart Materials and Structures, 2007, 16, 919-926.	3.5	68
5	Interface reduction for Hurty/Craig-Bampton substructured models: Review and improvements. Mechanical Systems and Signal Processing, 2019, 114, 579-603.	8.0	67
6	PODâ€“DEIM model order reduction for strain-softening viscoplasticity. Computer Methods in Applied Mechanics and Engineering, 2017, 317, 458-479.	6.6	59
7	Dynamic Nonlinear Aeroelastic Model of a Kite for Power Generation. Journal of Guidance, Control, and Dynamics, 2014, 37, 1426-1436.	2.8	44
8	Generalization of quadratic manifolds for reduced order modeling of nonlinear structural dynamics. Computers and Structures, 2017, 192, 196-209.	4.4	43
9	Exact nonlinear model reduction for a von KÃ¡rmÃ¡n beam: Slow-fast decomposition and spectral submanifolds. Journal of Sound and Vibration, 2018, 423, 195-211.	3.9	42
10	Numerical computation of nonlinear normal modes in a modal derivative subspace. Computers and Structures, 2018, 195, 34-46.	4.4	41
11	Substructuring in Engineering Dynamics. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2020, , .	0.6	40
12	Reduction Method for Finite Element Nonlinear Dynamic Analysis of Shells. AIAA Journal, 2011, 49, 2295-2304.	2.6	38
13	Post-buckled precompressed piezoelectric flight control actuator design, development and demonstration. Smart Materials and Structures, 2006, 15, 1323-1331.	3.5	33
14	A modal derivatives enhanced Rubin substructuring method for geometrically nonlinear multibody systems. Multibody System Dynamics, 2019, 45, 57-85.	2.7	29
15	Post-Buckled Precompressed (PBP) Actuators: Enhancing VTOL Autonomous High Speed MAVs. , 2005, , .		23
16	A non-intrusive model-order reduction of geometrically nonlinear structural dynamics using modal derivatives. Mechanical Systems and Signal Processing, 2021, 147, 107126.	8.0	21
17	Discrete Empirical Interpolation Method for Finite Element Structural Dynamics. Conference Proceedings of the Society for Experimental Mechanics, 2013, , 203-212.	0.5	19
18	Optimal second order reduction basis selection for nonlinear transient analysis. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 27-39.	0.5	17

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19	A nonlinear reduced order model with parametrized shape defects. Computer Methods in Applied Mechanics and Engineering, 2020, 360, 112785.	6.6	16
20	Nonlinear Aeroelasticity, Flight Dynamics and Control of a Flexible Membrane Traction Kite. Green Energy and Technology, 2013, , 307-323.	0.6	15
21	A Reduction Method for Finite Elements Nonlinear Dynamic Analysis of Shells. , 2006, , .		13
22	Interface Reduction with Multilevel Craigâ€“Bampton Substructuring for Component Mode Synthesis. AIAA Journal, 2018, 56, 2030-2044.	2.6	13
23	Simulation-Free Hyper-Reduction for Geometrically Nonlinear Structural Dynamics: A Quadratic Manifold Lifting Approach. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	1.2	13
24	Reduced-Order Dynamic Model of a Morphing Airborne Wind Energy Aircraft. AIAA Journal, 2019, 57, 3586-3598.	2.6	13
25	A Finite Element Based Reduction Method for Nonlinear Dynamics of Structures. , 2005, , .		12
26	Model order reduction for temperature-dependent nonlinear mechanical systems: A multiple scales approach. Journal of Sound and Vibration, 2020, 465, 115022.	3.9	12
27	A FINITE ELEMENT-BASED PERTURBATION METHOD FOR NONLINEAR FREE VIBRATION ANALYSIS OF COMPOSITE CYLINDRICAL SHELLS. International Journal of Structural Stability and Dynamics, 2011, 11, 717-734.	2.4	11
28	A higher-order parametric nonlinear reduced-order model for imperfect structures using Neumann expansion. Nonlinear Dynamics, 2021, 104, 3039-3063.	5.2	11
29	A Substructuring Method for Geometrically Nonlinear Structures. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 157-165.	0.5	11
30	Post-buckled precompressed (PBP) elements: a new class of flight control actuators enhancing high-speed autonomous VTOL MAVs. , 2005, , .		10
31	A consistency analysis of phase-locked-loop testing and control-based continuation for a geometrically nonlinear frictional system. Mechanical Systems and Signal Processing, 2022, 170, 108820.	8.0	10
32	Reduced Order Methods and Algorithms for Structurally Nonlinear Joined Wings. , 2015, , .		9
33	Hyper-Reduction Over Nonlinear Manifolds for Large Nonlinear Mechanical Systems. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	1.2	9
34	Reduction methods for MEMS nonlinear dynamic analysis. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 53-65.	0.5	9
35	A Modified Discrete Empirical Interpolation Method for Reducing Non-Linear Structural Finite Element Models. , 2013, , .		8
36	A Computational Method for Structurally Nonlinear Joined Wings Based on Modal Derivatives. , 2014, , .		8

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37	A new, challenging benchmark for nonlinear system identification. Mechanical Systems and Signal Processing, 2017, 84, 185-193.	8.0	7
38	An augmented free-interface-based modal substructuring for nonlinear structural dynamics including interface reduction. Journal of Sound and Vibration, 2019, 462, 114915.	3.9	6
39	Concurrent Design and Flight Mission Optimization of Morphing Airborne Wind Energy Wings. AIAA Journal, 2021, 59, 1254-1268.	2.6	6
40	Reduced basis methods for structurally nonlinear Joined Wings. Aerospace Science and Technology, 2017, 68, 486-495.	4.8	5
41	(Student paper) Nonlinear Semi-Analytical Modeling of Post-Buckled Precompressed (PBP) Piezoelectric Actuators for UAV Flight Control. , 2006, , .		4
42	Bridging the Gap Between Nonlinear Normal Modes and Modal Derivatives. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 349-361.	0.5	4
43	A Finite Element Based Perturbation Method for Nonlinear Free Vibration of Structures. , 2007, , .		2
44	A modal-based approach for optimal active modifications of resonance modes. Journal of Sound and Vibration, 2015, 334, 151-163.	3.9	2
45	Predictive Modeling of Bolted Assemblies with Surface Irregularities. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 247-258.	0.5	2
46	Numerical Assessment of Polynomial Nonlinear State-Space and Nonlinear-Mode Models for Near-Resonant Vibrations. Vibration, 2020, 3, 320-342.	1.9	2
47	Effective Modal Derivatives Based Reduction Method for Geometrically Nonlinear Structures. , 2011, , .		1
48	Model Reduction Concepts and Substructuring Approaches for Linear Systems. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2020, , 25-73.	0.6	1
49	Model Reduction Concepts and Substructuring Approaches for Nonlinear Systems. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2020, , 233-267.	0.6	1
50	Weakly Nonlinear Systems: Modeling and Experimental Methods. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2020, , 269-277.	0.6	1
51	CONTROL OF THE EIGENSOLUTIONS OF A HARMONICALLY DRIVEN COMPLIANT STRUCTURE. , 2014, , .		1
52	Interface Reduction on Hurty/Craig-Bampton Substructures with Frictionless Contact. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 1-16.	0.5	1
53	A Finite Element Based Perturbation Method for Nonlinear Free Vibration of Composite Cylindrical Shells. , 2009, , .		0
54	Effective Response Modifications of Non-Proportionally Damped Resonating Structures. Applied Mechanics and Materials, 0, 704, 143-147.	0.2	0

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55	Preliminaries: Primal and Dual Assembly of Dynamic Models. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2020, , 5-24.	0.6	0
56	Industrial Applications & Related Concepts. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2020, , 183-231.	0.6	0