Franco Mastroddi

List of Publications by Year
in descending order

74	885	516710 16	552781 26
papers	citations	h-index	g-index

75	75	75	505
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical and experimental investigation of piezoelectric energy harvester based on flag-flutter. Aerospace Science and Technology, 2020, 97, 105634.	4.8	73
2	Matrix fraction approach for finite-state aerodynamic modeling. AIAA Journal, 1995, 33, 703-711.	2.6	67
3	Shunted piezoelectric patches in elastic and aeroelastic vibrations. Computers and Structures, 2003, 81, 91-105.	4.4	54
4	Performance Evaluation of a Piezoelectric Energy Harvester Based on Flag-Flutter. Micromachines, 2020, 11, 933.	2.9	41
5	Study of Reduced-Order Models for Gust-Respnse Analysis of Flexible Fixed Wings. Journal of Aircraft, 2004, 41, 304-313.	2.4	38
6	Limit-cycle stability reversal via singular perturbation and wing-flap flutter. Journal of Fluids and Structures, 2004, 19, 765-783.	3.4	29
7	Finite-Element-Based Modeling for Flight Dynamics and Aeroelasticity of Flexible Aircraft. Journal of Aircraft, 2017, 54, 2350-2366.	2.4	29
8	Analysis of Pareto frontiers for multidisciplinary design optimization of aircraft. Aerospace Science and Technology, 2013, 28, 40-55.	4.8	28
9	Aeroelastics Flight Dynamics Coupling Effects of the Semi-Aeroelastic Hinge Device. Journal of Aircraft, 2020, 57, 333-341.	2.4	28
10	Nonlinear Dynamics of a Beam on Elastic Foundation. Nonlinear Dynamics, 1997, 14, 335-355.	5.2	27
11	LIMIT-CYCLE STABILITY REVERSAL NEAR A HOPF BIFURCATION WITH AEROELASTIC APPLICATIONS. Journal of Sound and Vibration, 2002, 256, 347-365.	3.9	24
12	A linearized reduced-order model approach for sloshing to be used for aerospace design. Aerospace Science and Technology, 2021, 108, 106369.	4.8	24
13	Linearized Aeroelastic Analysis for a Launch Vehicle in Transonic Flight Conditions. Journal of Spacecraft and Rockets, 2006, 43, 92-104.	1.9	20
14	A nonlinear analysis of stability and gust response of aeroelastic systems. Journal of Fluids and Structures, 2008, 24, 436-445.	3.4	19
15	On the use of geometry design variables in the MDO analysis of wing structures with aeroelastic constraints on stability and response. Aerospace Science and Technology, 2011, 15, 196-206.	4.8	19
16	Time- and frequency-domain linear viscoelastic modeling of highly damped aerospace structures. Mechanical Systems and Signal Processing, 2019, 122, 42-55.	8.0	19
17	Experimental characterisation of sloshing tank dissipative behaviour in vertical harmonic excitation. Journal of Fluids and Structures, 2022, 109, 103478.	3.4	19
18	Autonomy for underwater robotsâ€"a European perspective. Autonomous Robots, 2016, 40, 1113-1118.	4.8	18

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19	A fifth-order multiple-scale solution for Hopf bifurcations. Computers and Structures, 2004, 82, 2723-2731.	4.4	17
20	Multi-modal damping by shunted piezo-patches: Possible aeroelastic applications. International Journal of Applied Electromagnetics and Mechanics, 2006, 24, 1-24.	0.6	16
21	Hydrofoil vibration induced by a random flow: a stochastic perturbation approach. Journal of Sound and Vibration, 2005, 283, 401-432.	3.9	15
22	Sloshing reduced-order model based on neural networks for aeroelastic analyses. Aerospace Science and Technology, 2022, 127, 107708.	4.8	14
23	Linearized Aeroelastic Gust Response Analysis of a Launch Vehicle. Journal of Spacecraft and Rockets, 2011, 48, 420-432.	1.9	13
24	POD analysis for free response of linear and nonlinear marginally stable aeroelastic dynamical systems. Journal of Fluids and Structures, 2012, 33, 85-108.	3.4	13
25	Nonlinear Aeroelastic Trim of Very Flexible Aircraft Described by Detailed Models. Journal of Aircraft, 2018, 55, 2338-2346.	2.4	13
26	APPLICABILITY CONDITIONS OF A NON-LINEAR SUPERPOSITION TECHNIQUE. Journal of Sound and Vibration, 1997, 200, 3-14.	3.9	12
27	Aeroelastic Sensitivity Analyses for Flutter Speed and Gust Response. Journal of Aircraft, 2000, 37, 172-180.	2.4	12
28	Nonlinear reduced-order model for vertical sloshing by employing neural networks. Nonlinear Dynamics, 2022, 107, 1469-1478.	5.2	12
29	Sloshing reduced-order models for aeroelastic analyses of innovative aircraft configurations. Aerospace Science and Technology, 2021, 118, 107075.	4.8	12
30	Normal form analysis of a forced aeroelastic plate. Journal of Sound and Vibration, 2017, 390, 141-163.	3.9	10
31	Nonlinear aeroelastic modeling via conformal mapping and vortex method for a flat-plate airfoil in arbitrary motion. Journal of Fluids and Structures, 2016, 62, 230-251.	3.4	9
32	Assessment and development of a ROM for linearized aeroelastic analyses of aerospace vehicles. CEAS Aeronautical Journal, 2017, 8, 353-369.	1.7	9
33	Structural damping models for passive aeroelastic control. Aerospace Science and Technology, 2021, 118, 107011.	4.8	9
34	Unsteady Aeroelastic Analysis of the Semi Aeroelastic Hinge Including Local Geometric Nonlinearities. AIAA Journal, 2022, 60, 3147-3165.	2.6	9
35	Mechanical systems virtual sensing by proportional observer and multi-resolution analysis. Mechanical Systems and Signal Processing, 2021, 146, 107003.	8.0	8
36	Post-buckling longterm dynamics of a forced nonlinear beam: A perturbation approach. Journal of Sound and Vibration, 2014, 333, 2617-2631.	3.9	7

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37	OMA analysis of a launcher under operational conditions with time-varying properties. CEAS Space Journal, 2018, 10, 381-406.	2.3	7
38	Experimental validation of solid rocket motor damping models. CEAS Space Journal, 2018, 10, 213-230.	2.3	6
39	Structural validation of a realistic wing structure: the RIBES test article. Procedia Structural Integrity, 2018, 12, 448-456.	0.8	6
40	Quasi-Steady Aeroelastic Analysis of the Semi-Aeroelastic Hinge Including Geometric Nonlinearities. Journal of Aircraft, 2021, 58, 1168-1178.	2.4	6
41	Aeroelastic Response of Composite Aircraft Swept Wings Impacted by a Laser Beam. AIAA Journal, 2006, 44, 382-391.	2.6	5
42	On the modal decoupling of linear mechanical systems with frequency-dependent viscoelastic behavior. Mechanical Systems and Signal Processing, 2016, 70-71, 769-787.	8.0	5
43	On the modal diagonalization of viscoelastic mechanical systems. Mechanical Systems and Signal Processing, 2017, 96, 159-175.	8.0	5
44	Semi-analytical unsteady aerodynamic model of a flexible thin airfoil. Journal of Fluids and Structures, 2018, 80, 288-315.	3.4	5
45	WAVELET ANALYSIS FOR HOPF BIFURCATIONS WITH AEROELASTIC APPLICATIONS. Journal of Sound and Vibration, 1999, 225, 887-913.	3.9	4
46	Sensitivity Analysis for the Dynamic Aeroelasticity of a Launch Vehicle. Journal of Spacecraft and Rockets, 2008, 45, 999-1009.	1.9	4
47	A Normal Form analysis in a finite neighborhood of a Hopf bifurcation: on the Center Manifold dimension. Nonlinear Dynamics, 2018, 91, 1461-1472.	5.2	4
48	Aerothermoelastic Response of a Functionally-Graded Aircraft Wing to Heat Loads. , 2008, , .		3
49	Aerothermoelastic Stability of Composite Aerovehicle Wings Subjected to Heat Inputs. AIAA Journal, 2008, 46, 992-1001.	2.6	3
50	Non-linear modelling for Multi-Disciplinary and Multi-Objective Optimization of a complete aircraft. Aerotecnica Missili & Spazio, 2013, 92, 61-68.	0.9	3
51	Multi-disciplinary and multi-objective optimization of an over-wing-nacelle aircraft concept. CEAS Aeronautical Journal, 2019, 10, 771-793.	1.7	3
52	Multidisciplinary Design and Optimization for Fluid-Structure Interactions. , 2002, , .		3
53	Multidisciplinary Design Optimization for the Preliminary Design of Aeronautical Configurations. , 2004, , .		2
54	Aeroelastic Identification of Flying UAVs by Output-Only Data with Applications on Vibrations Passive Control. , 2010, , .		2

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55	MDO analyses of wing structures for a complete aeroelastically constrained aircraft. CEAS Aeronautical Journal, 2012, 3, 67-77.	1.7	2
56	Multi-Disciplinary and Multi-Objective Optimization of an Unconventional Aircraft Concept. , 2015, , .		2
57	POD approach for unsteady aerodynamic model updating. CEAS Aeronautical Journal, 2015, 6, 121-136.	1.7	2
58	Multiphysics numerical investigation on the aeroelastic stability of a Le Mans Prototype car. Procedia Structural Integrity, 2019, 24, 875-887.	0.8	2
59	Sloshing ROMs for Fluid-Structure Interactions in Aerospace Applications. , 2020, , .		2
60	Experimental Evaluation of Piezoelectric Energy Harvester Based on Flag-Flutter. Lecture Notes in Mechanical Engineering, 2020, , 807-816.	0.4	2
61	On Modeling of Piezoelectric Patches in Aeroelastic Vibrations. , 2002, , 531.		1
62	Multidisciplinary Design Optimization for Aircraft Configurations. , 2006, , .		1
63	Aerothermoelastic Stability of Composite Aircraft Wings Subjected to Heat Inputs. , 2006, , .		1
64	Preliminary Design of an Amphibious Aircraft by the Multidisciplinary Design Optimization Approach. , 2007, , .		1
65	Multi-frequency dynamic absorber for improved spacecraft comfort during the launch phase. CEAS Space Journal, 2012, 3, 77-88.	2.3	1
66	Analytical formulation of 2-D aeroelastic model in weak ground effect. Journal of Fluids and Structures, 2013, 42, 270-295.	3.4	1
67	Coupled Flight Dynamics and Aeroelasticity of Very Flexible Aircraft Based on Commercial Finite Element Solvers. , 2018, , .		1
68	Experimental Validation of Neural-Network-Based Nonlinear Reduced-Order Model for Vertical Sloshing. , 2022, , .		1
69	Surrogate Finite-Element Modelling for Launch Vehicle Multidisciplinary Optimization. , 2022, , .		1
70	Sloshing Wing Dynamics - 2nd Year Project Overview. , 2022, , .		1
71	Limit Cycle Stability Reversal via Singular Perturbation and Wing-Flap Flutter. , 2002, , 159.		0
72	Sensitivity analysis for the aeroelastic stability of a launch vehicle. , 2006, , .		0

#	Article	IF	Citations
73	Damping Models in Aircraft Flutter Analyses. , 2020, , 419-427.		0
74	Nonlinear Sloshing Integrated Aeroelastic Analyses of a Research Wing Prototype. , 2022, , .		0