

# Carlos Jr De Marqui

## List of Publications by Year in descending order

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76  
papers

1,664  
citations

471477

17  
h-index

289230

40  
g-index

77  
all docs

77  
docs citations

77  
times ranked

937  
citing authors

#	ARTICLE	IF	CITATIONS
1	Space-time wave localization in electromechanical metamaterial beams with programmable defects. <i>Mechanical Systems and Signal Processing</i> , 2022, 167, 108550.	8.0	20
2	Effects of negative capacitance circuits on the vibration attenuation performance of a nonlinear piezoelectric metastructure. , 2022, , .		0
3	Mechanics and dynamics of two-dimensional quasicrystalline composites. <i>Extreme Mechanics Letters</i> , 2021, 44, 101220.	4.1	9
4	A Numerical Study of a Rotor Induced Flow Based on a Finite-State Dynamic Wake Model.. <i>Trends in Computational and Applied Mathematics</i> , 2021, 22, 307-324.	0.2	0
5	Dynamics and wave propagation in nonlinear piezoelectric metastructures. <i>Nonlinear Dynamics</i> , 2021, 105, 2995-3023.	5.2	15
6	Bandgap widening by optimized disorder in one-dimensional locally resonant piezoelectric metamaterials. <i>Journal of Sound and Vibration</i> , 2021, 512, 116369.	3.9	20
7	Membrane smart metamaterials for unidirectional wave propagation problems. <i>Journal of Sound and Vibration</i> , 2021, 512, 116374.	3.9	12
8	Bridging-Coupling Phenomenon in Linear Elastic Metamaterials by Exploiting Locally Resonant Metachain Isomers. <i>Physical Review Applied</i> , 2020, 14, .	3.8	7
9	Nonlinear piezoelectric plate framework for aeroelastic energy harvesting and actuation applications. <i>Smart Materials and Structures</i> , 2020, 29, 105006.	3.5	8
10	An Experimental Study of a Piezoelectric Metastructure With Adaptive Resonant Shunt Circuits. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020, 25, 1076-1083.	5.8	18
11	Effect of negative capacitance circuits on the performance of the piezoelectric nonlinear energy sink. , 2020, , .		3
12	An investigation of optimal non-uniform locally resonant piezoelectric metamaterials. , 2020, , .		1
13	Vibration attenuation in a nonlinear flexible structure via nonlinear switching circuits and energy harvesting implications. <i>Journal of Intelligent Material Systems and Structures</i> , 2019, 30, 965-976.	2.5	11
14	Effect of constitutive model parameters on the aeroelastic behavior of an airfoil with shape memory alloy springs. <i>JVC/Journal of Vibration and Control</i> , 2018, 24, 1065-1085.	2.6	7
15	The Use of Damping Based Semi-Active Control Algorithms in the Mechanical Smart-Spring System. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2018, 140, .	1.6	1
16	Experimental study on the aeroelastic behavior of a typical airfoil section with superelastic shape memory alloy springs. <i>Journal of Intelligent Material Systems and Structures</i> , 2018, 29, 623-635.	2.5	6
17	An Investigation of the Electroaeroelastic Behavior of a Locally Resonant Piezoelectric Metastructure. , 2018, , .		0
18	Essentially Nonlinear Piezoelectric Attachment for Aeroelastic Flutter Suppression. , 2018, , .		1

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19	Effects of Bandgap Formation on the Aeroelastic Behavior of a Plate-Like Wing. , 2018, , .		0
20	Tunable metamaterial beam with shape memory alloy resonators: Theory and experiment. Applied Physics Letters, 2018, 113, .	3.3	58
21	An experimentally validated piezoelectric nonlinear energy sink for wideband vibration attenuation. Journal of Sound and Vibration, 2018, 437, 68-78.	3.9	34
22	On the electrode segmentation for piezoelectric energy harvesting from nonlinear limit cycle oscillations in axial flow. Journal of Fluids and Structures, 2018, 82, 492-504.	3.4	22
23	Equivalent electrical circuit framework for nonlinear and high quality factor piezoelectric structures. Mechatronics, 2018, 54, 133-143.	3.3	15
24	Adaptive locally resonant metamaterials leveraging shape memory alloys. Journal of Applied Physics, 2018, 124, .	2.5	36
25	Effects of a piezoelectric based nonlinear energy sink on the behavior of an electromechanically coupled beam. , 2018, , .		0
26	Locally resonant metamaterials with shape-memory alloy springs. , 2018, , .		0
27	Experimental Verification of a Semi-Active Piezoelectric Pitch Link for Helicopter Vibration Attenuation. , 2017, , .		2
28	Self-powered active control of elastic and aeroelastic oscillations using piezoelectric material. Journal of Intelligent Material Systems and Structures, 2017, 28, 2023-2035.	2.5	10
29	Aeroelastic behavior of a typical section with shape memory alloy springs: Modeling nonhomogeneous distribution of state variables. Applied Mathematical Modelling, 2017, 52, 404-416.	4.2	9
30	Novel Equivalent Electrical Circuits for Linear and Nonlinear Electromechanically Coupled Systems. , 2017, , .		0
31	Aeroelastic flutter enhancement by exploiting the combined use of shape memory alloys and nonlinear piezoelectric circuits. Journal of Sound and Vibration, 2017, 407, 46-62.	3.9	17
32	Modeling and Experimental Verification of the Aeroelastic Behavior of a Typical Airfoil Section With Shape Memory Alloy Springs. , 2017, , .		0
33	On the Optimal Piezoelectric Material Distribution in Energy Harvesting From a Nonlinear Beam Under Axial Flow. , 2016, , .		0
34	Suppression of Nonlinear Bifurcations in Flexible Structures Using Nonlinear Switching Shunt Damping Circuits. , 2016, , .		0
35	Piezoelectric Energy Harvesting. , 2016, , 267-288.		3
36	Effect of pseudoelastic hysteresis of shape memory alloy springs on the aeroelastic behavior of a typical airfoil section. Journal of Intelligent Material Systems and Structures, 2016, 27, 117-133.	2.5	16

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37	Energy analysis of semi-passive control for an aeroelastic plate-like wing using shunted piezoelectric materials. Journal of Intelligent Material Systems and Structures, 2016, 27, 2599-2615.	2.5	10
38	Airfoil-based piezoelectric energy harvesting by exploiting the pseudoelastic hysteresis of shape memory alloy springs. Smart Materials and Structures, 2015, 24, 125014.	3.5	14
39	Applied self-powered semi-passive control for a 2-degree-of-freedom aeroelastic typical section using shunted piezoelectric materials. Journal of Intelligent Material Systems and Structures, 2015, 26, 373-385.	2.5	10
40	Aeroelastic control of non-rotating and rotating wings using the dynamic stiffness modulation principle via piezoelectric actuators. Journal of Intelligent Material Systems and Structures, 2015, 26, 1656-1668.	2.5	9
41	Active angular control of a sectioned airfoil using shape memory alloys and fuzzy controller. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2015, 37, 1555-1567.	1.6	11
42	Three-Degree-of-Freedom Hybrid Piezoelectric-Inductive Aeroelastic Energy Harvester Exploiting a Control Surface. AIAA Journal, 2015, 53, 394-404.	2.6	48
43	Modeling and Analysis of a Piezoelectric Energy Harvester with Varying Cross-Sectional Area. Shock and Vibration, 2014, 2014, 1-9.	0.6	35
44	Self-Powered Active Control for an Aeroelastic Plate-Like Wing Using Piezoelectric Material. , 2014, , .		1
45	Electroaeroelastic analysis of airfoil-based wind energy harvesting using piezoelectric transduction and electromagnetic induction. Journal of Intelligent Material Systems and Structures, 2013, 24, 846-854.	2.5	78
46	Airfoil-Based Linear and Nonlinear Electroaeroelastic Energy Harvesting. , 2013, , 269-294.		1
47	Hybrid piezoelectric-inductive flow energy harvesting and dimensionless electroaeroelastic analysis for scaling. Applied Physics Letters, 2013, 102, .	3.3	78
48	Electroaeroelastic modeling and analysis of a hybrid piezoelectric-inductive flow energy harvester. , 2013, , .		2
49	An Experimental Investigation Into the Performance of a T-Shaped Piezoelectric Flow Energy Harvester. , 2013, , .		0
50	Piezoelectric Energy Harvesting From Nonlinear Aeroelastic Vibrations. , 2013, , .		0
51	Vibration Suppression of a Plate-Like Wing Under Atmospheric Turbulence Using Passive And Hybrid Piezoelectric Circuits. , 2013, , .		1
52	Dimensionless analysis and scaling of a hybrid 3DOF airfoil-based piezoelectric-inductive aeroelastic energy harvester. , 2013, , .		0
53	Passive and hybrid piezoelectric circuits to reduce induced-atmospheric turbulence vibration of a plate-like wing. Proceedings of SPIE, 2013, , .	0.8	1
54	Mathematical Insights of Mode Localization in Nearly Cyclic Symmetric Rotors With Mistune. , 2013, , .		0

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55	Modeling and Analysis of Piezoelectric Energy Harvesting from Helicopter Blades. , 2012, , .		2
56	Non-Linear Modeling and Analysis of Composite Helicopter Blade for Piezoelectric Energy Harvesting. , 2012, , .		1
57	Piezoaeroelastic Typical Section for Wind Energy Harvesting. Conference Proceedings of the Society for Experimental Mechanics, 2012, , 53-61.	0.5	0
58	Nonlinear Dynamic Model and Simulation of Morphing Wing Profile Actuated by Shape Memory Alloys. Conference Proceedings of the Society for Experimental Mechanics, 2012, , 21-28.	0.5	4
59	Enhanced aeroelastic energy harvesting by exploiting combined nonlinearities: theory and experiment. Smart Materials and Structures, 2011, 20, 094007.	3.5	109
60	Modeling and Analysis of Piezoelectric Energy Harvesting From Aeroelastic Vibrations Using the Doublet-Lattice Method. Journal of Vibration and Acoustics, Transactions of the ASME, 2011, 133, .	1.6	85
61	Frequency Domain Solution of a Piezo-aero-elastic Wing for Energy Harvesting. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 247-259.	0.5	0
62	Macro-Fiber Composite Actuators for Flow Control of a Variable Camber Airfoil. Journal of Intelligent Material Systems and Structures, 2011, 22, 81-91.	2.5	27
63	Linear and Nonlinear Aeroelastic Energy Harvesting Using Electromagnetic Induction. , 2011, , .		2
64	Piezoceramic Composite Actuators for Flow Control in Low Reynolds Number Airflow. Journal of Intelligent Material Systems and Structures, 2010, 21, 1201-1212.	2.5	12
65	Linear and Nonlinear Modeling and Experiments of a Piezoaeroelastic Energy Harvester. , 2010, , .		1
66	On the energy harvesting potential of piezoaeroelastic systems. Applied Physics Letters, 2010, 96, .	3.3	323
67	Piezoaeroelastic Modeling and Analysis of a Generator Wing with Continuous and Segmented Electrodes. Journal of Intelligent Material Systems and Structures, 2010, 21, 983-993.	2.5	130
68	Numerical and Experimental Investigation and Optimization of a Morphing Airfoil. , 2010, , .		3
69	Effect of Segmented Electrodes on Piezo-Elastic and Piezo-Aero-Elastic Responses of Generator Plates. , 2009, , .		4
70	An electromechanical finite element model for piezoelectric energy harvester plates. Journal of Sound and Vibration, 2009, 327, 9-25.	3.9	271
71	Finite Element Analysis of a UAV Wing Spar with Piezoceramics for Vibration Energy Harvesting. , 2009, , .		0
72	Analysis and Chaos Prediction of a Nonlinear Aeroelastic System via Lyapunov Exponents. , 2008, , .		0

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73	Design of an experimental flutter mount system. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2007, 29, .	1.6	6
74	Identification of flutter parameters for a wing model. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2006, 28, 339.	1.6	11
75	A flutter suppression active controller. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2005, 219, 19-33.	1.3	12
76	Wind-Tunnel Model and a Controller for Flutter Suppression. , 2004, , .		1